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ABSTRACT

The functions of the Center for Studies in Vocational and Technical Education, established under a Ford Foundation grant at the University of Wisconsin in 1964, are to examine, evaluate, and further the development of the nation's system of occupational education by research, graduate study, conferences, establishment of a national depository of reference materials, and dissemination of publications. The report contains information on research and publications on vocational education, and on three conferences held at the University of Wisconsin during fiscal year 1969. Lists of graduate research and publications of research activities at the Center are also included. (BC)

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ANNUAL REPORT 1969

Center for Studies in Vocational & Technical Education

Industrial Relations Research Institute The University of Wisconsin-Madison

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CENTER FOR STUDIES IN
VOCATIONAL AND TECHNICAL EDUCATION

REPORT
November 1969

The Center for Studies in Vocational and Technical Education was established at The University of Wisconsin in the fall of 1964 under a grant from The Ford Foundation.

INDUSTRIAL RELATIONS RESEARCH INSTITUTE
The University of Wisconsin
Madison, Wisconsin

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PREFACE

The Center for Studies in Vocational and Technical Education was established at The University of Wisconsin in the fall of 1964 under a five-year grant from The Ford Foundation. Its functions are to examine, evaluate, and further the development of the nation's system of occupational education by means of interdisciplinary research, graduate study, conferences, the establishment of a national depository of reference materials, and the dissemination of publications resulting from research and conferences.

The Center concluded the five-year period of its original Ford Foundation grant on September 30, 1969. The grant period has been extended for a sixth year by the Foundation through the utilization of funds in the initial allocation.

In 1969, as in the preceding four years, the Center has continued to make progress in research, graduate study, and the dissemination of research findings and other information pertaining to vocational education. A number of interdisciplinary research projects have reached the publication stage, to take their place among those reports completed earlier. As in the case of the earlier monographs and research reports, it is expected that the publications of 1969 will contribute significantly to the national appraisal and understanding of vocational and technical education in the United States. This report contains summaries of these publications as well as notes on research in progress.

As is indicated in the Report, a large number of graduate students have been assisted in their studies relating to vocational education, and they, in turn, have assisted significantly in carrying out the research of the Center. Their research efforts are embodied in Master's theses and Ph. D. dissertations, and it is hoped that many of these

students will continue their interest in the field of vocational education as their careers unfold. At the same time, financial assistance provided by the Center has permitted students to gain practical experience in vocational education institutions, and it has provided an opportunity for vocational education personnel to return to the University for completion of their graduate study leading to advanced degrees.

Conferences, planned and supported by the Center during 1968 and 1969, added notably to those held in previous years. Another is now in the planning stage for 1970. As is noted in the Report, the growing number of conference proceedings is adding significantly to the nation's store of knowledge concerning vocational and technical education.

In addition to the conference proceedings and the research monographs, the Center has continued to sponsor a series of periodical publications, especially the Journal of Human Resources, which is rapidly gaining in reputation as a major outlet for research articles in this field. A complete list is included in this Report.

In the past year the Center's Reference Unit has continued to grow from the standpoint of its library holdings and from the standpoint of its widespread use by vocational educators and research personnel throughout the country. Unfortunately, reference services must be curtailed in 1969-70 because of lack of funds.

Gerald G. Somers

Madison, Wisconsin
November 1969

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THE CENTER STAFF
(1969)

Co-Directors

J. Kenneth Little, Professor of Educational Administration
Gerald G. Somers, Professor and Chairman of Economics

Administrative Associates

Richard W. Whinfield
Pauline B. Fosdick

Associated Faculty Members

Michael Aiken, Associate Professor of Sociology
Robert Alford, Professor of Sociology
Jack Barbash, Professor of Economics
Walter Bjoraker, Professor of Agriculture Extension Education
B. Dean Bowles, Assistant Professor of Educational Administration
Charles Bridgman, Professor of Psychology
Glen Cain, Associate Professor of Economics
Alan Filley, Professor of Business
W. Lee Hansen, Professor of Economics and Educational Policy Studies
David Johnson, Professor of Economics
Duane Kasten, Instructor, Mechanical Engineering
Donald McIsaac, Assistant Professor of Educational Administration
Richard Perlman, Professor of Economics, UW--Milwaukee
Philip Perrone, Professor of Counseling and Behavioral Studies
Charles Perrow, Associate Professor of Sociology
Leroy Peterson, Professor of Educational Administration
Kirk Petshek, Professor of Urban Affairs, UW--Milwaukee
Harland Samson, Professor of Business and Curriculum and Instruction
James Stern, Professor of Economics
Merle Strong, Professor of Educational Administration
Burton Weisbrod, Professor of Economics

Past Associated Faculty Members

Norman Dufty, Perth Technical Institute, Perth, Australia (1966-67)
Walter Fogel, University of California, Los Angeles (1967-68)
John Helling, President, North Hennepin State Junior College, Osseo,
Minnesota (1966-67)
Graeme McKechnie, York University, Downsview, Ontario, Canada (1966-67)
Murray Tucker, The President's Commission on Income Maintenance,
Washington, D. C. (1966-68)

Publications

Robert Lampman, Editor, Journal of Human Resources, Professor of Economics
Barbara Dennis, Managing Editor

Conference Planning

Karen Krueger, Project Specialist

Reference Unit

Paul Kedinger, Information Co-ordinator
 Virginia Wolters, Resource Specialist
 Mary Baumbach, Indexer
 Wilton Miller, Indexer
 Vicki Schoen, Indexer
 Anila Bhatt, Indexer

Research and Project Assistants

Kenneth Bryson
 Susan Fernbach
 Lucian Gatewood
 Morley Gunderson
 Edith Healt
 Harish C. Jain
 Karl Magnusen
 James Marketti
 Bernard Neinhaus
 Myron Roomkin
 Shuni Umetani

Graduate Fellows

William Horvath
 Spiro Mehail

Clerical

Mildred Hammes, Secretary
 Sandra Offerdahl, Secretary
 Shirley Rabideau, Bookkeeper

Publications

Robert Lampman, Editor, Journal of Human Resources, Professor of Economics
 Barbara Dennis, Managing Editor

Conference Planning

Karen Krueger, Project Specialist

THE ADVISORY COMMITTEE

The advisory Committee of the Center for Studies in Vocational and Technical Education gives guidance and direction to the Center staff in its programs of data-gathering and dissemination, research, and instruction. The members of the Advisory Committee are:

Chairman

Edwin Young, Vice-President, Chancellor, The University of Wisconsin

On-Campus Members

Lorentz H. Adolfson, Chancellor, University of Wisconsin Centers
 Erwin A. Gaumnitz, Dean, School of Business
 Donald J. McCarty, Dean, School of Education
 Donald R. McNeil, Chancellor, University of Wisconsin Extension
 Glenn S. Pound, Dean, College of Agriculture
 William Sewell, Vilas Professor of Sociology

Off-Campus Members

Curtis Aller, Manpower Administrator, U.S. Department of Labor, Washington
 Melvin L. Barlow, Director, Division of Vocational Education, University of California, Los Angeles
 George Howden, Division Engineer, Wisconsin Telephone Company, Appleton
 Marvin J. Feldman, Program Associate, The Ford Foundation, New York
 Jacob F. Friedrich, President, Milwaukee Labor Council, Milwaukee
 Clarence L. Greiber, Director, State Board of Vocational and Technical Education, Madison
 Lawrence Hoyt, Director, Wausau Technical Institute, Wausau
 Gilbert Jautz, Principal, Boy's Technical Trade School, Milwaukee
 Charles E. Jones, Superintendent of Schools, Manitowoc
 Alfon Mathison, Administrative Counselor, Milwaukee Vocational-Technical and Adult School, Milwaukee
 William J. Micheels, President, Stout State University, Menomonie
 Angus B. Rothwell, Executive Director, Coordinating Committee for Higher Education in Wisconsin, Madison
 William Shannon, Associate Executive Director, American Association of Junior Colleges, Washington
 Francis J. Walsh, Director, State Employment Service, Madison
 Karl Werwath, President, Milwaukee School of Engineering, Milwaukee

Past Members

Robben W. Fleming, President, University of Michigan
 Eugene I. Lehrmann, Assistant State Director, Department of Vocational,
 Technical, and Adult Education, Madison
 Edward J. Meade, Jr., Program Associate, The Ford Foundation
 Lindley J. Stiles, Professor of Interdisciplinary Education, Northwestern
 University
 Theodore J. Shannon, Professor of Education, Extension Division, University
 of Wisconsin

Advisory Committee Meeting--1968-69

Previous Annual Reports of the Center have covered the first six
 meetings of the Advisory Committee--February 23, 1965; December 1, 1965;
 May 23, 1966; December 15, 1966; November 16, 1967; and May 9, 1968.

Those attending the seventh meeting of the Advisory Committee were:

J. Kenneth Little	Prof. of Educational Administration (Co-director)
Gerald G. Somers	Prof. of Economics (Co-director)
H. Edwin Young	Chancellor--Univ. of Wisconsin (Chairman)
Merle E. Strong	Prof. of Educational Administration
Ernest Stromsdorfer	Visiting Associate Professor, Pennsylvania State
Kurt F. Wendt	Dean--School of Engineering
William Micheels	President--Stout State University
George Howden	Division Engineer--Wisconsin Telephone Co., Appleton
Gilbert Jautz	Principal, Boy's Technical Trade School, Milwaukee
Roland Krogstad	(Representing C. L. Greiber, Director, State Board of Vocational and Technical Education, Madison)
Edward Kehl	(Representing Francis Walsh, Dir., State Board Employment Service, Madison)
Richard W. Whinfield	Administrative Associate

Mr. Little reported briefly on recent conferences held by the
 Center. A conference on Employment Training Programs in Correctional
 Institutions held in June, 1968 gave attention to vocational education
 programs now receiving much attention throughout the Nation. (A report
 of the proceedings of this conference has now been published.)

The "Man, Education and Work" Conferences held in six regions of
 the Nation (Atlanta, New Brunswick, Dallas, Chicago, San Francisco and
 Fort Collins) with a summary conference held in Madison was another
 major conference activity. The Center acted as the organizer of the
 set of conferences. The regional conferences were conducted by Center-
 selected vocational education leaders at the locations where the

conferences were held. To the extent possible, persons attending the conferences were the kinds of people who would be eligible to serve on the state advisory councils authorized and required by the Vocational Education Act of 1968. The purpose of the conferences was to make visible to citizen groups the recommendations of the National Advisory Council on Vocational Education, and to obtain feedback upon the implications and next steps for accomplishing the objectives outlined in the report.

During the period when the conferences were being held, the Vocational Education Act of 1968 was passed and signed. This legislation implemented many parts of the recommendations of the Advisory Council. The conferences then discussed the action implications of the new federal legislation.

This series of conferences was held at the suggestion of the American Vocational Association with special funding provided through the Ford Foundation.

Mr. Somers discussed the conference on Cost-Benefit Analysis of Vocational Education Programs to be held in May, 1969. This conference was jointly financed by the U. S. Department of Labor, the Canadian Manpower Commission and the Center. Mr. Somers noted that the University of Wisconsin was chosen not only because of the Center but because of the presence of widely-known economists at the University.

Mr. Somers called attention to Center sponsored research projects as described in the 1968 Report on the Center for Studies in Vocational-Technical Education. About 20 faculty members have been involved in studies representing a broad range of areas including the following:

- 1) labor market information and vocational education, 2) vocational training of the unemployed and disadvantaged, 3) evaluation of vocational

and technical programs, 4) comparative studies of vocational and labor market behavior, 5) community and political factors affecting both vocational education, and 6) staffing of vocational education.

Mr. Stromsdorfer, who was a visiting associate professor from Pennsylvania State University, discussed the evaluation study on the Neighborhood Youth Corps. The study is nation-wide, including a stratified random sample of 60 programs. There will be 60 experimental observations and 60 control observations. The study relates to fiscal years 1966-67. It includes both responses to personal questionnaires and information from school records. It was indicated that costs would be studied. Benefits of the program will be studied in terms of economic benefits, scholastic benefits to students, character changes in terms of attendance, dropout rate, etc. The earnings of employment will also be determined.

Mr. Little reported briefly on the publications of the Center which include the following:

Journal of Human Resources--had begun its fourth year relating to the fields of education, manpower and welfare policies.

Reprint Series--initiated in 1965--abstracts are contained in the Center Report for 1968.

Research Newsletter--quarterly publication designed to keep interested persons advised of Center activities. It includes conference summaries, graduate study reports, research abstracts, and references and retrieval system reports. Distribution--1220.

Vocational Education Today and Tomorrow--A volume on the present status and changing character of vocational and technical education in the U.S. (Outstanding experts have agreed to write Chapters as reported on page 86 of the 1968 Annual Report.)

A projected two-week national leadership conference to be held the last week of July and the first week of August, 1969, was discussed by Merle Strong. It was generally agreed that providing adequate leadership would be a critical problem in achieving the new goals of vocational and technical education as called for in the 1968 Act. The workshop would be a two-week intensive training session emphasizing both leadership skills and content required for administrators of vocational and technical education. Emphasis is to be placed on the needs of post-secondary administrators in Wisconsin and surrounding states. The following topics are some that may be included: 1) new dimensions in vocational and technical education, 2) new emphasis in the Vocational Education Act of 1968, 3) staffing requirements and needs of people, 4) establishing program priorities, 5) effective roles of advisory committees, 6) concepts in developing a system of program planning and budgeting, 7) personnel development, and 8) planning facilities and equipment.

It was explained that the Center has been funded through a Ford grant and that the grant is due to run out next September. It is felt, however, that funds may be stretched through the calendar year 1969. It was indicated that the Center has been very successful in securing outside funds; however, funds of a continuing type will be needed to support the operation of the Center beyond January 1, 1969. Discussion centered around such matters as: a) the university's continuing commitment to the continuation of Center activities, b) the programs of the Center most likely to receive continuing support from the Ford Foundation, c) plan of organizing Center activities, d) nation-wide versus state orientation of activities, e) making the Center's activities and services visible to more potential users and contributors.

Purpose

The uppermost goal of the Reference Unit is to assemble a national depository of reference material in the fields of general vocational, agricultural, business, distributive, home economics, health, technical and trade and industrial education. Secondly, with the aid of the Termatrix information retrieval system, the Unit has periodically disseminated updated bibliographies for utilization by vocational educators and others.

Functions

In accomplishing this purpose, the Reference Unit has been divided into five interacting functions: a) acquisition, b) indexing, c) input, d) output, and e) additional services.

Acquisition

Four categories are used in the classification of worthwhile literature that is stored in the Center Library. The Center's Resource Specialist may deem a reference necessary for permanent storage. If so, the material is purchased and stored as a Library reference. In the case of unobtainable items, i. e., theses or dissertations, the reference is cited, but designated as Non-library. Magazine and professional journal abstracts are also reviewed and catalogued as Abstract materials. Finally, when the Resource Specialist is notified of newly funded, experimental projects or interim reports, the material receives the notation Project in Progress. This system of classification permits our library to enlarge its perimeters and consequently offer extra service to vocational researchers and educators.

In addition to assigning materials to the four categories that act as the Center's location masters, the Resource Specialist continually scans federal and state publication notices, newsletters, foreign and domestic journals and vocational magazines in search of new research and innovative

educational programs.

Many more than the 10,000 documents collected in the retrieval system have been acquired over the past five years. The majority of documents have been incorporated into our system; some of the material of lesser value is reviewed and stored as miscellaneous material, while others of dubious quality are discarded. Strenuous quality checks are exercised by the Unit's staff. At each stage of document processing any item's eventual pertinency for the researcher and educator is judged. And at any time it can be removed from the Center's collection.

Indexing

The correct indexing of material is as vital to the proper value of any item as are the numerous quality controls. The descriptive terms the indexer assigns to concentrate the reference's message are the tools that affect the valuable retrieval of information. If the indexer fails in his comprehension of the reference, the reference is destined to improper output and serviceability.

Graduate students in the various specialized vocational subject areas were, at first, employed as indexers. It was assumed that high knowledgeability of a subject area would facilitate accurate identification of indexing terms. However, two years ago, the Center readjusted its position and hired four liberal arts graduate students. Apparently, the specialized vocational education indexer was assigning too much importance to the minor concepts expressed in an article, thus weakening the descriptive conciseness required for precise machine input. This year's indexers have been subjected to additional quality checks and periodical meetings with the Information Coordinator to refresh their indexing technique.

Input

When the indexing is completed, the document is housed in the Center's library and made available to any interested person. The index sheet carrying the terms that summarize the document is now recorded, i. e. each term is given a color-number code. These codes are then read into the Termatrix system. As mentioned above over 10,000 reference articles are now collected in the retrieval system.

Output

Upon request, general or specific information is retrieved from the machine. Topical bibliographies containing all pertinent references are typed and sent to the requester. Over 725 such free bibliographies have been mailed from this Center.

Additional Services

A series of selected acquisition listings is also distributed monthly to anyone requesting the issues. Prior to January 1969, the Center compiled 18 quarterly bibliographies. However, with the rapid increase of material in the retrieval system, these bibliographies grew enormous, making it difficult for the Center's clientele to devote their time to a thorough review of all the quarterly bibliographies. To remedy this problem the Center decided to publish a shortened bibliography on a monthly basis. Subject headings furthermore were introduced to ease the task of reviewing our bibliographic listings. The selected topics of these acquisition listings are: New Career Programs, Legislation, Retraining, Work Experience, Disadvantaged Groups, Hard-core Unemployed, Dropouts, Vocational Rehabilitation and Manpower. In addition to compiling the monthly acquisition listing, the Information Coordinator conducts demonstrations of our operation to other university groups and information centers.

Growth

The Reference Unit's growth has been prompted by the realization that the Vocational Education Act of 1963 and its recent amendment in 1968 have increased the prominence of vocational education. With this increased prominence has come the need for the exchange and dissemination of research information. This information need has resulted in our library's expansion and increasing requests for bibliographic citations.

Clientele

Table I below shows the extended geographic base this Center serves.

Conclusion

On August 31, 1969, the Center will temporarily close down certain functions of the Reference Unit for lack of funds. Until further notice, the Center cannot fulfill requests for topical bibliographies, compile the monthly acquisition listing or enlarge upon the materials stored in the information retrieval system.

The Center's library collection will be retained in the Social Science Graduate Reference Library, Room 8432, Social Science Building, and will continue to be available as an on-campus reference source.

A subject-heading classification system is being readied for use following the shut down of the Jonker's information retrieval system.

The past five years have been important years in the development and maturity of vocational education. The Reference Unit has been pleased with its part in this growth and looks forward to offering future assistance.

Table I

Geographical Distribution of Bibliographies
1967-1969

UNITED STATES	1967	1968	1969
Alabama	5	6	6
Alaska	2	2	2
Arizona	4	8	11
Arkansas	3	4	5
California	70	73	98
Colorado	9	11	14
Connecticut	8	14	16
Delaware	1	3	4
Dist. of Columbia	98	87	101
Florida	14	21	24
Georgia	6	8	14
Hawaii	8	8	7
Idaho	13	5	5
Illinois	56	64	73
Indiana	24	28	34
Iowa	18	22	27
Kansas	2	5	6
Kentucky	9	8	8
Louisiana	1	1	1
Maine	8	4	4
Maryland	15	17	20
Massachusetts	35	38	44
Michigan	60	69	79
Minnesota	27	28	34
Mississippi	5	4	2
Missouri	10	13	19
Montana	3	2	2
Nebraska	6	10	10
Nevada	6	5	6
New Hampshire	3	5	5
New Jersey	32	32	40
New Mexico	5	8	7
New York	101	127	147
North Carolina	12	16	16
North Dakota	6	4	4
Ohio	26	31	31
Oklahoma	9	17	31
Oregon	25	26	28
Pennsylvania	41	55	67
Rhode Island	2	6	4
South Carolina	3	19	17
South Dakota	-	1	1
Tennessee	12	10	11
Texas	13	19	20
Utah	15	16	15
Vermont	6	6	7
Virginia	8	9	14
Washington	12	14	15
West Virginia	8	11	13

1967

Table 1

1968

1969

Wisconsin
Wyoming
Puerto Rico
Guam
Samoa

Geographical Distribution

276

310

337

FOREIGN

Australia
Canada
Chile
China
England
W. Germany
India
Israel
Japan
Korea
Koror Palau
Malaysia
Mexico
Netherlands
Philippines
Switzerland
Yugoslavia
France
Thailand
West India

5

28

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2

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1

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2

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2

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1

1

Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
Dist. of Columbia
Florida
Georgia
Hawaii
Idaho
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia

NORTH AMERICAN CONFERENCE ON COST-BENEFIT ANALYSIS OF MANPOWER POLICIES

May 14-15, 1969

Madison, Wisconsin

The decade of the 1960's has witnessed an exceptional growth of manpower policies in Canada and the United States. Although these policies had their origin in the early years of the decade, amidst substantial unemployment and claims of long-run structural imbalance, they have continued to expand in a period of high-level employment and inflationary pressures.

As the 1960's approach their end, there is a growing need to evaluate public and private manpower policies. Have they contributed to long-run growth? Have they eased unemployment, poverty, and structural imbalance? Can they reduce inflationary pressures?

In keeping with current trends in a number of government agencies, cost-benefit analyses have increasingly been used to evaluate operating programs in the manpower field. This conference was concerned with an appraisal of theoretical and methodological problems of cost-benefit analysis and with a discussion of principal findings of studies of particular programs.

The calibre of the international group of experts assembled to present papers and discuss issues in this field of analysis ensured a fruitful and stimulating meeting.

Program

North American Conference on Cost-Benefit Analysis of Manpower Policies

May 14-15, 1969 Wisconsin Center The University of Wisconsin--Madison

Under the Auspices of The Center for Studies in Vocational and Technical Education
The University of Wisconsin--Madison

and The Industrial Relations Centre, Queen's University, Kingston, Ontario, Canada

Sponsored by the Canadian Department of Manpower & Immigration and the
United States Department of Labor

Conference Coordinators: Gerald G. Somers
University of Wisconsin

W. Donald Wood
Queen's University

(The Proceedings of this conference are available from either The Industrial Relations Centre, Queen's University, Kingston, Ontario, for Canadians, or from The Center for Studies in Vocational and Technical Education, The University of Wisconsin--Madison. Price \$5.00)

Wednesday, May 14, 1969

Theoretical Aspects of Cost-Benefit Analysis

8:30-9:00 a.m. Registration at the Wisconsin Center

9:00 a.m. Morning Session, 210 Wisconsin Center

Chairman: Gerald G. Somers
Chairman, Department of Economics
The University of Wisconsin

"Benefits: Theoretical and Methodological Issues"

Burton A. Weisbrod
Professor of Economics
The University of Wisconsin

"Costs: Theoretical and Methodological Issues"

Richard W. Judy
Professor of Political Economy
University of Toronto

Discussants:

John S. MacDonald
Faculty of Social Sciences
University of the West Indies

Andre Raymauld
Professor of Economics
University of Montreal

12:15 p.m. Luncheon in the Wisconsin Center Dining Room

Chairman: J. Kenneth Little
Co-Director, Center for Studies in Vocational and Technical Education
The University of Wisconsin

"The Role of Cost-Benefit Analysis in Formulating Manpower Policy"

William R. Dymond
Assistant Deputy Minister
Canadian Department of Manpower and Immigration

2:30 p.m. Afternoon Session, 210 Wisconsin Center

Chairman: W. Donald Wood
Director, Industrial Relations Centre
Queen's University

"The Social Discount Rate"
Kenneth J. Arrow
Professor of Economics
Harvard University

Discussants:

Arnold C. Harberger
Professor of Economics
University of Chicago

Grant L. Reuber
Head, Department of Economics
University of Western Ontario

5:00 p.m. Reception and Social Hour in the Alumni Lounge, Wisconsin Center

Thursday, May 15, 1969

Application of Cost-Benefit Analysis to Manpower Programs

9:00 a.m. Morning Session, 210 Wisconsin Center

Chairman: Duncan R. Campbell
Planning and Evaluation Branch
Canadian Department of Manpower and Immigration

"Occupational Training and Retraining Programs"
Einar Hardin
Professor of Economics
Michigan State University

"Evaluating Manpower Programs for the Disadvantaged"

Glen G. Cain
Robinson G. Hollister
Associate Professors of Economics
The University of Wisconsin

Discussants:

Ernst Stromsdorfer
Associate Professor of Economics
Pennsylvania State University

David O. Sewell
Assistant Professor of Economics
Queen's University

12:15 p.m. Luncheon in the Wisconsin Center Dining Room

Chairman: Robert J. Lampman
Bascom Professor of Economics
The University of Wisconsin

"Manpower Programs in the War on Poverty"
Robert A. Levine
Urban Institute

2:30 p.m. Afternoon Session, 210 Wisconsin Center

Chairman: Betti Goldwasser
Manpower Administration
U. S. Department of Labor

"Manpower and Employment Service Operations"
Frank H. Cassell
Frank H. Cassell, Consultants
Chicago, Illinois

"Manpower Mobility Programs"
Robert A. Jenness
Planning and Evaluation Branch
Canadian Department of Manpower and Immigration

Discussants:

Herbert S. Parnes
Professor of Economics
Ohio State University

Graeme H. McKechnie
Assistant Professor of Economics
York University

5:30 p.m. Reception in the Alumni Lounge, Wisconsin Center

6:30 p.m. Banquet in the Dining Room of the Wisconsin Center

Chairman: William Kolberg
Manpower Administration
U. S. Department of Labor

"Some Second Thoughts on Cost-Benefit Analysis"
Neil W. Chamberlain
Graduate School of Business
Columbia University

CONFERENCES

18.

**LEADERSHIP CONFERENCE FOR ADMINISTRATORS OF POST HIGH VOCATIONAL AND
TECHNICAL EDUCATION**

July 21-August 1, 1969

Madison, Wisconsin

An intensive two week session was developed for leaders in post secondary educational programs in response to expressed needs by educational administrators in Wisconsin and across the nation. Content was designed around the theme: Serving the Needs of People Through Post Secondary Vocational and Technical Education Programs.

The Conference brought together experts in many phases of vocational and technical education. Particular emphasis was placed on program planning and implementation. Expected new dimensions in programs, as reflected in the Vocational Education Amendments of 1968, were highlighted. These included residential schools, home economics for gainful employment and consumer education, cooperative education, health occupations and programs for the disadvantaged and handicapped. Discussions were also held on a number of problems being faced by administrators such as faculty negotiations, student unrest, staff development, and utilization of advisory committees.

A copy of the program and lists of resource people and participants follow:

Program

**Leadership Conference for Administrators of Post High Vocational and
Technical Education**

July 21-August 1, 1969

Sponsored by Center for Studies in Vocational-Technical Education

The University of Wisconsin

Madison

Conference Coordinator:

Merle E. Strong, Professor
Educational Administration
The University of Wisconsin

Monday, July 21

9:00 A.M.

Welcome: H. Edwin Young, Chancellor, The University of Wisconsin
Donald J. McCarty, Dean, School of Education, The University of Wisconsin
Gerald G. Somers, Co-Director, Center for Vocational-Technical Education, The University of Wisconsin
Clarence L. Greiber, Director, State Board, Vocational, Technical and Adult Education

Introductions

Objectives

Plan of Conference

Topic: The New Look in Vocational and Technical Education

J. Kenneth Little, Co-Director, Center for Studies in Vocational-Technical Education, The University of Wisconsin

Buzz Groups

1:00 P.M.

Topic: The Human Challenge for Post-Secondary Vocational and Technical Education
Merle E. Strong

Listening Teams

Tuesday, July 22

9:00 A.M.

Topic: The Unique Characteristics of Vocational and Technical Education Administration

C. Thomas Olivo, Professor, Vocational-Technical Education, Temple University

10:30 A.M.

Topic: Some Planning Tools, Strategies and Techniques

B. Dean Bowles, Assistant Professor, Educational Administration, The University of Wisconsin

Donald N. McIsaac, Associate Professor, Educational Administration, The University of Wisconsin

Roland F. Budner, Administrative Officer, Wisconsin State Board of Vocational-Technical Education

1:00-4:30 P.M.

Topic: Some Planning Tools, Strategies and Techniques (Continued)

7:00 P.M.

Topic: Our Community--U.S.A.

Merle E. Strong, Professor of Educational Administration, The University of Wisconsin

Task Force Organization and Assignment

The central activity of the conference will be the planning of a comprehensive program of vocational and technical education in "X-Community, USA." In planning, special emphasis will be placed on procedures, priorities and new directions as outlined in the Vocational Education Act of 1968. Presentations by experts and group activity will focus on specific problem areas related to planning and administration of a comprehensive approach to meeting post-secondary vocational education needs.

Wednesday, July 23

9:00 A.M.

Topic: Some Planning Tools, Strategies and Techniques (Continued)

10:00 A.M.

Topic: Cost Benefit Analysis as Related to Work Training Programs
Ernst Stromsdorfer, Visiting Associate Professor in Industrial Relations (Pennsylvania State University)

1:00 P.M.

Topic: Working with the Power Structure
Mary P. Allen, Director, Public Information, American Vocational Association, Washington, D. C.
Robert Van Tries, Director, Vocational-Technical Education, State of Minnesota
Lawrence B. Hoyt, Director, District #15, Wausau, Wisconsin

Thursday, July 24

9:00 A.M.

Topic: New Dimensions in Home Economics for Gainful Employment and Consumer Education
Pauline Garrett, Program Officer, Vocational-Technical Education, Regional Office, USOE, Denver

1:00 P.M.

Topic: Organizing and Operating the Residential School
Wayne Miller, Okmulgee State Tech, Okmulgee, Oklahoma

Friday, July 25

9:00 A.M.

Topic: Health Occupations--New Dimensions
Helen K. Powers, Senior Program Officer, Post-Secondary Education, USOE, Washington, D. C.
Conference Groups

1:00 P.M.

Topic: Cooperative Education--A Promising Method for Expanding Post-Secondary Training Opportunities

Panel: Harland Samson (Chairman), Professor, School of Education (Distributive), The University of Wisconsin
Representatives from business, industry and education to be selected

Monday, July 28

9:00 A.M.

Topic: The Challenge of Staff Development

Rupert N. Evans, Dean, College of Education, University of Illinois, Champaign

1:00 P.M.

Topic: The Post-Secondary Administrator and Faculty Harmony (Faculty Unrest and Negotiations)

Norman Mitby, Director, District #4, Madison Area Technical College

Tuesday, July 29

9:00 A.M.

Topic: Task Force Work Session

1:00 P.M.

Topic: Meeting the Students Needs Within the School Setting

William L. Ramsey, Director, Milwaukee Technical College

Wednesday, July 30

9:00 A.M.

Topic: Development and Utilization of Advisory Committees--State and Local

Chairman, Richard W. Whinfield

Symposium

Rationale for Advisory Committees

Earl M. Bowler, Senior Program Officer, Adult Education, USOE

Role and Function of State Advisory Committee

Clarence Greiber, Director, State Board of Vocational-Technical

and Adult Education, Madison, Wisconsin

Role and Function of Local Advisory Committee

Keith W. Stoehr, Director, District #6, Kenosha Technical

Institute, Kenosha, Wisconsin

Conference Groups

The Development of Guidelines for Use of Advisory Committees

1:00 P.M.

Topic: Task Force Work Groups

Thursday, July 31

9:00 A.M.

Topic: Innovative Programs for Serving the Handicapped and Disadvantaged

W. George Patten, Executive Director, OIC (Occupational Industry Center), Milwaukee, Wisconsin

1:00 P.M.

Topic: The Administrator's Role in Keeping Programs Relevant (Selling Innovation)

John K. Coster, Director, Center for Occupational Education, North Carolina State University, Raleigh, North Carolina

3:00 P.M.

Topic: The Public Information Program

William G. Shannon, Associate Executive Director, American Association of Junior Colleges, Washington, D. C.

Friday, August 1

9:00 A.M.

Topic: Task Force Reports

1:00 P.M.

Summary
Evaluation

Resource People

H. Edwin Young, Chancellor, The University of Wisconsin

Donald J. McCarty, Dean, School of Education, The University of Wisconsin

Gerald G. Somers, Co-Director, Center for Vocational-Technical Education,
The University of Wisconsin

Clarence L. Greiber, Director, State Board of Vocational, Technical and
Adult Education

J. Kenneth Little, Co-Director, Center for Studies in Vocational-Technical
Education, The University of Wisconsin

C. Thomas Olivo, Professor, Vocational-Technical Education, Temple University

B. Dean Bowles, Assistant Professor, Educational Administration, The
University of Wisconsin

Donald N. McIsaac, Associate Professor, Educational Administration,
The University of Wisconsin

Roland F. Budner, Administrative Officer, Wisconsin State Board of
Vocational-Technical Education

Merle E. Strong, Professor of Educational Administration, The University
of Wisconsin

Ernst Stromsdorfer, Visiting Associate Professor in Industrial Relations
(Pennsylvania State University)

Mary P. Allen, Director, Public Information, American Vocational Associa-
tion, Washington, D. C.

Robert Van Tries, Director, Vocational-Technical Education, State of
Minnesota

Lawrence B. Hoyt, Director, District #15, Wausau, Wisconsin

Pauline Garrett, Program Officer, Vocational-Technical Education, Regional
Office, USOE, Denver

Wayne Miller, Okmulgee State Tech, Okmulgee, Oklahoma

Helen K. Powers, Senior Program Officer, Post-Secondary Education, USOE,
Washington, D. C.

Harland Samson, Professor, School of Education (Distributive), The
University of Wisconsin

Gen Olson, Supervisor, Service Occupations, Anoka Technical Institute,
Anoka, Minnesota

Eugene Klein, Instructor, Marketing Department, Milwaukee Technical College,
Milwaukee, Wisconsin

Kenneth Ingvalson, Instructor, Soils and Fertilizer Technology, Ganby Area
Vocational-Technical School, Ganby, Minnesota

Norman Mitby, Director, District #4, Madison Area Technical College

William L. Ramsey, Director, Milwaukee Technical College

Richard W. Whinfield, Administrative Associate, Industrial Relations Research
Institute, The University of Wisconsin

Earl M. Bowler, Senior Program Officer, Adult Education, USOE

Keith W. Stoehr, Director, District #6, Kenosha Technical Institute,
Kenosha, Wisconsin

W. George Patten, Executive Director, OIC (Occupational Industry Center),
Milwaukee, Wisconsin

John K. Coster, Director, Center for Occupational Education, North Carolina
State University, Raleigh, North Carolina

William G. Shannon, Associate Executive Director, American Association
of Junior Colleges, Washington, D. C.

PARTICIPANTS

Allwardt, L. E., Wisconsin Board of Vocational Education, 137 East Wilson
Street, Madison, Wisconsin

Apel, Margaret M., Department of Public Instruction, Supervisor, Home
Economics, Madison, Wisconsin

Arthur, Paul, Consultant, Technical, Trade and Industrial Education,
Des Moines, Iowa

Babula, Walter, Research and Development, Voc-Tech and Adult Education,
District #5, Janesville, Wisconsin

Bluschke, Harvey, Assoc. Chairman Trade and Industry Apprenticeship, Technical
and Adult Education District #4, Madison, Wisconsin

Bodine, Merle W., Chief, Manpower Development and Training, Wisconsin Board of Vocational, Technical and Adult Education

Brainerd, Charlotte, Home Economics Coordinator, Southwest Wisconsin Vocational-Technical School, Fennimore, Wisconsin

Brill, Donald M. Supervisor, Research, Wisconsin State Board of Vocational, Technical and Adult Education

Celley, Lorran C., 137 E. Wilson Street, Madison, Wisconsin

Chaffee, Fonda L., 1301 Spring Street, Madison, Wisconsin

Chindawong, Prayong, Thailand

Chojuowski, Walter A., State Superintendent of Office - D.E., 137 E. Wilson Street, Wisconsin Vocational Board

Christianson, Charles, Assistant Director, North Central Technical Institute, Area UTA Education District Fifteen, 1000 Schofield Avenue, Wausau

Cothran, Arthur H., Director ADVOTECH #18, New Richmond, Wisconsin

Crawford, Leland O., Consultant Vocational Education Branch, Iowa State Department of Public Instruction, Des Moines, Iowa

Dermott, Grace M., Assistant Dean, Nursing, Practical, Milwaukee Area Technical College, 1015 North 6th Street, Milwaukee, Wisconsin

Ditzler, Walter E., Dean of Vocational-Technical Education, Pima College, Tucson, Arizona

Dvorsky, John, Business Manager, Area Voc-Tech Branch, Racine, Wisconsin

Flandro, Dr. Royce P., Educational Vice President, Utah Technical College, Provo, Utah

Gill, Kathryn, 445 West Wilson Street, Madison, Wisconsin

Grinde, George, Lakeshore Voc-Tech School, School Administrator at Manitowoc, DeForest, Wisconsin

Groy, Hayden D., Sauk County Area Coordinator of Adult, Vocational and Technical Education #4, 737 N. Walnut Street, Reedsburg, Wisconsin

Horne, Vernon O., Area Coordinator, Kenosha Technical Institute, Kenosha, Wisconsin

Kinsler, George R., Chief, Trade and Industrial Education, Wisconsin State Board of Vocational, Technical and Adult Education

Krogstad, Roland J., Supervisor, Home Economics Education, Department of Public Instruction

Lauscher, Florence E., Supervisor, Home Economics Education, Department of Public Instruction

- Ledger, Gerald, Area Coordinator, Kenosha Technical Institute, Kenosha, Wisconsin
- Lindow, David W., Administrator--Administrative Services, Fennimore, Wisconsin
- Lutton, Donald A. Community College, Baltimore, Maryland
- Martin, Charlotte, Supervisor, Adult Basic Education, Wisconsin State Board of Vocational, Technical and Adult Education
- McGuire, George, Curriculum Coordinator, Waukesha County, Waukesha, Wisconsin
- Merriner, Donald, Media Specialist, Waukesha County Technical, Waukesha, Wisconsin
- Neverdahl, William, Area Coordinator, Vocational and Adult School, Menomonie, Wisconsin
- Nickel, Miss Christine, Supervisor Home Economics Education, Wisconsin State Board of Voc-Tech Education, Madison, Wisconsin
- Palen, Beatrice K., Supervisor, Health Occupations Education, Wisconsin Board of Vocational, Technical and Adult Education
- Pfarr, Gerald J., Information Coordinator, Kenosha Technical Institute, Kenosha, Wisconsin
- Pribyl, Paul F., Fire Service Instructor, Wisconsin State Board of Voc-Tech Education, Madison, Wisconsin
- Ruhig, Theodore F., Executive Secretary, State Commission on Manpower and Full Employment, Honolulu, Hawaii
- Sahakian, Harold, Supervisor Field Services, State Board of Voc-Tech Education, Madison, Wisconsin
- Schell, Norbert, School Administrator, Lakeshore Technical Institute, Sheboygan, Wisconsin
- Scheve, Helen, Supervisor, Home Economics, Wisconsin Board of Vocational, Technical and Adult Education
- Schloemer, Camilla R., Supervisor, Health Occupations, Wisconsin Board for Vocational, Technical and Adult Education
- Shubert, C. Lloyd, Professor of Education, School of Education, Mankato State College, Mankato, Minnesota
- Snowberger, Campbell, Dean of Instruction, Hagerstown College, Hagerstown, Maryland
- Thatcher, George A., Director of Uintah Basin Area Vocational Center, Roosevelt, Utah
- Vick, Mary D., 1015 North 6th Street, Milwaukee Area Technical College, Dean, Nursing and Health Occupations

CONFERENCES

Walker, Eddie, Electrical Instructor, Milwaukee Technical College

Welsh, Lowell A., Director, State Department of Education, Milford,

Nebraska

May 13 and 14, 1970

Wheeler, Walter, Program Assistant, University Extension, University of Wisconsin

Wollberg, Robert, Student Services Administrator, Area Voc-Tech and

Adult Education District #7, Racine, Wisconsin

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There has been considerable discussion, in and outside of Congress,

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The conference scheduled for May 13 and 14, 1970, sponsored by

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tion has been passed by the time of the conference, discussions will

focus on the procedures for carrying out provisions of the act and on

the possible consequences of the act. If the legislation has not yet

been passed at the time of the conference, the speakers are expected

to contribute significantly to the formulation of decisions with regard

to enactment of the legislation. Among those to be invited to partici-

pate at the conference will be top level representatives of the Department

of Labor and of Health, Education and Welfare; as well as Congressional

representatives who have become associated with the proposed legislation.

Experts on manpower and vocational education from academic circles and from

the vocational education system will also be invited to participate.

CONFERENCES

VOCATIONAL EDUCATION AND TRAINING UNDER A COMPREHENSIVE MANPOWER POLICY
 May 13 and 14, 1970

Madison, Wisconsin

The Nixon administration has proposed the enactment of comprehensive legislation which would have far-reaching implications for current manpower and training programs as well as vocational education. Bills to carry out these and related suggestions have been introduced by Senator Javits and by Congressmen Steiger and O'Hara.

There has been considerable discussion, in and outside of Congress, concerning the impact of such a comprehensive manpower policy on the traditional activities of vocational schools and, especially, on the activities entrusted to the vocational schools by the Vocational Education Amendments of 1968. These amendments assigned a major role to vocational schools in establishing programs for the disadvantaged.

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RESEARCH AND PUBLICATIONS

The research activities of the Center have continued to expand. Many of the projects reported earlier have been completed and final reports have been published or are being prepared for publication. Publications can be obtained from the Center. If no price is listed, a single copy of the publication will be sent free of charge. The asterisk (*) indicates that the publication is out of print. The following research projects, by topic area, have been conducted under Center auspices.

I. LABOR MARKET INFORMATION AND VOCATIONAL EDUCATION

A series of studies have been conducted by faculty members and graduate students on the response of vocational education to labor market information and labor market changes.

A. Manpower Projections and Planning

A number of studies have been designed to determine the availability of information on private manpower planning, local manpower needs, and national manpower projections which may be used for planning vocational and technical education courses:

1. LONG RANGE OCCUPATIONAL PROJECTIONS

Investigator: W. Lee Hansen, Professor of Economics and Educational Policy Studies

This study is directed at evaluating current efforts to make long-range projections of occupational trends in the United States.

Publications: "Labor Force and Occupational Projections,"
Proceedings of the Eighteenth Annual Meeting, Industrial Relations
Research Association, (December 1965)

"The Economics of Scientific and Engineering Manpower," The Journal of Human Resources, Vol. II, No. 2 (Spring 1967)

2. THE RESPONSE OF VOCATIONAL EDUCATION TO LABOR MARKET CHANGES

Investigator: Gerald G. Somers

Publication: "The Response of Vocational Education to Labor Market Changes," The Journal of Human Resources, Supplement, 1968

3. ASSESSING THE EXTENT OF MANPOWER FORECASTING AMONG MILWAUKEE FIRMS

Investigator: Richard Perlman, Professor of Economics, UW-Milwaukee

Publication: Assessing the Extent of Manpower Forecasting Among Milwaukee Firms. Center Research Report, June 1969, 58 pp., mimeo., \$1.50.

This research study reports a survey of 159 Milwaukee employers, drawn from a sample of 574 employers in the city. These employers were asked questions concerning the extent of their manpower forecasting and planning, and the relationship of these policies to their programs of on-the-job training. Unfortunately, the study results were very negative on the extent or quality of manpower forecasting. While most firms reported that they engage in manpower forecasting to some degree, by the criteria established they do not tend to forecast seriously, even though they claim that poor forecasts would harm their operations. Further, the extent of forecasting does not appear closely related to training programs which the respondents undertake.

4. ON THE JOB TRAINING, MANPOWER PLANNING AND VOCATIONAL EDUCATION IN MILWAUKEE

Investigator: Richard Perlman, Professor of Economics, UW-Milwaukee

Publication: On-The-Job Training in Milwaukee--Nature, Extent, and Relationship to Vocational Education, Center Research Report. June 1969, 37 pp., mimeo., \$1.50.

In this study, Professor Perlman relates his findings on employer forecasting to their training programs. The purpose of this study was to evaluate the degree of complementarity and, perhaps, redundancy of training in vocational schools and training on the job. Most of the firms interviewed reported that they were satisfied with the vocational education received by workers trained for advanced positions. However, an important minority of the responding firms, those which tried to fit workers previously trained in vocational schools into specific jobs, usually found that these workers required additional training and even a review and re-education of the techniques they learned in the schools. Very few firms reported that they had formal on-the-job training programs. Findings on the relationship between vocational education in the schools and training on the job point to a future evolution in which the vocational schools will provide instruction in basic educational tasks related to industry, and the business firms will provide instruction in particular skills as well as practice in utilizing these skills.

B. Labor Market Information and the Initiation of Vocational Courses

Five projects in this field have been designed to determine the process by which vocational education courses and programs are initiated, and, especially the extent to which labor market information is utilized in the initiation of new courses.

1. PROGRAM INITIATION IN TECHNICAL INSTITUTES

Investigator: Norman F. Dufty, Perth Technical Institute, Australia

Publication: "Program Initiation in Technical Institutes," The Journal of Human Resources, Vol. III, No. 3 (Summer 1968)

2. A STUDY OF THE EFFECTIVENESS OF PROCEDURES FOR ESTABLISHING VOCATIONAL AND TECHNICAL PROGRAMS IN WISCONSIN

Investigators: Gerald G. Somers, with the assistance of Richard Whinfield, Thomas Barocci & Morley Gunderson

Publication: Curriculum Initiation in Wisconsin Vocational and Technical Schools, 1969, \$1.50. Report by Thomas Barocci.

Rapid changes in the labor force require vocational education to re-examine the techniques and procedures used to initiate new training programs. The first step in this process is to review the present and past practices, and to evaluate their effectiveness. We are especially interested in the use of labor market information in initiating new vocational courses.

This study is a pilot study to devise techniques which can be used to make such an evaluation. Using a loosely structured interview form, personal interviews were conducted with all vocational directors in Wisconsin high schools and technical schools. Randomly selected advisory committee members, representing all schools with vocational programs, were also interviewed. A mail questionnaire was sent to a random selection of vocational teachers. The study demonstrates the need for more effective use of labor market information in establishing new vocational courses and programs.

3. AN EVALUATION OF AREA SKILL SURVEYS AS A BASIS FOR VOCATIONAL EDUCATION AND MANPOWER POLICY

Investigator: Collette Moser, Assistant Professor of Economics, University of Indiana, South Bend

Research in Progress:

The purpose of this research is to evaluate Area Skill Surveys in terms of their accuracy and implementation. Area Skill Surveys are local labor market studies which project detailed occupational supply and demand for two to five years hence. They are conducted, in a

variety of ways, by the majority of state public employment agencies.

The methods of evaluation employed in this project include the following: (1) examining and analyzing the form and content of the approximately 150 surveys presently in existence; (2) conducting follow-up surveys in various areas of the country, in order to validate the employer projections; and (3) administering questionnaires to vocational educators in several states designed to assess the use of this information on local occupational projections in curriculum planning and administration.

Funds have been provided by the Office of Manpower Policy, Evaluation and Research, U. S. Department of Labor (Manpower Administration).

4. SURVEY OF NEED FOR VOCATIONAL-TECHNICAL EDUCATION PROGRAM IN AN INDUSTRIAL METROPOLITAN SUBURB.

Investigators: John Helling and J. Kenneth Little, Professors of Educational Administration

Graduate Assistants: Joseph H. McGivney; John Houle

Publication: Study of South Milwaukee County Educational Needs.
1967, 91 pp., mimeo.

In cooperation with a group of high schools in South Milwaukee County, and with the assistance of the State Board of Vocational Education, the Center undertook a study of the needs for and feasibility of establishing improved vocational-technical programs in that rapidly developing suburban complex. The suburban communities studied were: Cudahy, Franklin, Greendale, Greenfield, Oak Creek, St. Francis, South Milwaukee, and Whitnall.

The study included investigations of demographic characteristics and the educational needs among four separate groups: 1) former high school students from the survey area; 2) present area high school seniors; 3) South Milwaukee County residents; and 4) employers of South

Milwaukee residents. Several visits were made to examine existing post-high school educational facilities in and near the survey area.

Conclusions generally supported the following premises: 1) a majority of present and former high school students planned for some college training; 2) among those persons surveyed, most felt that some post-high school training was necessary for successful occupational placement; 3) although many survey respondents identified a college education as the one sought by the greatest number of students, all four groups perceived the most urgent post-high school need in South Milwaukee County was vocational-technical programs; 4) present facilities for vocational-technical education in and around the study area are either stringently limited in scope or are filled to capacity and consequently not meeting the rising demand to accommodate more students.

The final report listed one major recommendation: post-high school educational facilities of a vocational-technical nature should be developed to serve the people of South Milwaukee County. Alternative plans for the actualization of the recommendation were suggested.

The study used a procedure of interviewing residents of 1,000 households selected at random from property tax rolls of the assessor of real estate in each community. This method enabled the study to reflect the attitudes, occupations, and characteristics of residents of the community regardless of the location of their jobs--one-third of the residents were found to be commuting more than nine miles to work. This procedure contrasts with a frequent practice of interviewing persons employed in local business or industry.

5. A PILOT STUDY OF CURRICULUM NEEDS IN WELDING TECHNOLOGY

Investigator: Duane Kasten, Instructor in Mechanical Engineering

Publication: A Pilot Study of Curriculum Needs in Welding Technology.
(Summary of a Report). No date, 13 pp., mimeo

A study of the need for welding technologists in Wisconsin was made by using a survey of employers and educators in the state. It was found that the need and desire for such a program existed. Employers would like to be able to hire skilled people who have been trained in post-high school institutions. A shortage of adequately trained instructors in the technology was discovered. No attempt was made to draw up a curriculum, but desired skills and knowledge were identified.

C. Counselling, Guidance and Labor Market Information

Research has also been conducted on the use of labor market information and school data in counselling and guidance of high school students, with a comparison between those enrolled in academic high schools and those enrolled in vocational schools.

1. SURVEY OF THE USE OF OCCUPATIONAL DATA IN THE VOCATIONAL COUNSELLING OF HIGH SCHOOL STUDENTS

Investigators: Philip A. Perrone, Professor of Counselling and Behavioral Studies; Gerald G. Somers; Murray A. Tucker

Research Assistant: Lola Gross

Publication: A National School Counselor Evaluation of Occupational Information. April 1968, 31 pp., mimeo.

This survey was prompted by an awareness that little was known about the materials which school personnel use, how they use these materials, and whether more use would be made of outlook and description materials if new formats were made available.

Questionnaires were sent to every identifiable high school in the United States, based on the United States Office of Education list which had not been updated since 1962. A sample of the schools established since 1962 was also contacted. The response rate was about 34 per cent. A sampling of nonrespondents was made to determine the

representativeness of the sample. The questionnaires sent included one for counsellors, one for librarians, and one for vocational instructors.

Counsellors cited the noncollege going students as the group for which available information is the poorest. Counsellors, librarians, and vocational instructors all noted a small percentage of these students seeking information. From these and other significant findings, Dr. Perrone concludes that thousands of hours are spent by individual counsellors in establishing and maintaining information systems. He suggests that a better approach would be to establish state or regional centers where all schools would have rapid and inexpensive access to current information, and that greater attention should be given to the use of a job cluster format, with the basic elements of work depicted in films or filmstrips.

2. PREDICTING JOB SATISFACTION AND JOB PERFORMANCE OF RECENT GRADUATES OF HIGH SCHOOL VOCATIONAL PROGRAMS

Investigator: Philip A. Perrone, Professor of Counselling and Behavioral Studies

Graduate Assistant: Bernard Neinhaus

Publication: Predicting Job Entry, Job Satisfaction and Job Performance of Graduates from Wisconsin Secondary School Vocational Programs, 1969, 46 pp., mimeo.

The State of Wisconsin initiated 30 pilot programs in vocational education at the high school level in 1964-65. These schools were selected by the State Department of Education as a representative sample of Wisconsin high schools. Included were schools from Milwaukee, smaller cities, suburbs, and rural areas.

During the students' senior year, their vocational instructors were asked to identify the five pupils having the best "worker potential" and the five with the poorest "worker potential". Additional information including teacher ratings, pupil self ratings, scholastic performance,

parents' educational and vocational backgrounds, achievement test scores, educational and vocational plans including career objectives, expected entry jobs, wage aspirations work models, work value orientations, job involvement, achievement value orientation, and major life satisfactions were obtained.

After two years, an attempt was made to contact all the members of this group to determine whether they were working, going to school, had entered the military, or were married and not working in the case of girls. After five follow-up attempts nearly all the graduates except some from the Milwaukee inner-core had been located.

Those students who were now working ($n=236$) were asked to complete a questionnaire seeking to ascertain the relationship between high school experiences and aspects of their present job. They were also asked to complete a job satisfaction questionnaire. In addition, for those workers who gave their permission ($n=165$), the immediate job supervisor was contacted and asked to complete a survey instrument rating the employees regarding knowledge and skills, work habits, cooperation, and communication with supervisors and peers.

Analysis of the data attempts to answer the following questions:

- (1) What information available in high school can successfully predict job satisfaction and job performance two years after graduation? (2)

What is the relationship of job satisfaction and job performance two years after high school graduation?

Publication: "The Marginal Worker: Projections of High School Vocational Teachers," The Journal of Human Resources, Vol. III, No. 4, (Fall, 1968) derived from above-described research and co-authored by Profs. Perrone and Donald H. Johnson.

3. LONGITUDINAL STUDIES OF THE VOCATIONAL AND EDUCATIONAL DEVELOPMENT AND THE VALUE STABILITY OF JUNIOR HIGH SCHOOL CLASSES

Investigator: Philip A. Perrone, Professor of Counselling and Behavioral Studies

Graduate Assistant: James Jacobs

Publications: "Values and Occupational Preferences of Junior High School Girls." Personnel and Guidance Journal, 44:4; 253-57, (December 1965)

"The Counselling Function as Seen by Students, Parents, and Teachers." Journal of Counselling Psychology, 12:2; 148-152, (Summer 1965)

"Junior High School Students and Their Parents Look Ahead." Guidelines, 4:1; 19-22, (October 1965)

"Stability of Values of Junior High School Pupils and Their Parents Over Two Years." Personnel and Guidance Journal, 46:3; 268-274, (November 1967)

"Characteristics of Students Who Seek Counselling,"
Doctoral Dissertation, James Jacobs, 1969

These publications are a continuation of a study entitled "The Role of Values in Vocational Aspirations and Expectations of a Selected Group of Students from Early Adolescence through Young Adulthood" (see Annual Report 1966). The first class graduated from high school in 1968 and a study focusing on differential characteristics of students making minimal use of guidance services and those students making fuller use of these services was made. In addition, the characteristics of these two groups after completion of high school were studied.

II. VOCATIONAL TRAINING OF THE UNEMPLOYED AND DISADVANTAGED

A series of studies has been conducted on vocational education and retraining programs for unemployed and disadvantaged workers. The following publications have resulted from this research:

Publications:

1. Gerald G. Somers (ed.), Retraining the Unemployed (Madison: The University of Wisconsin Press, 1968).

The case studies in this volume evaluate the effectiveness of recent and current retraining programs for unemployed and disadvantaged workers under federal, state, municipal, and union-management auspices, judging them by their success in placing workers in useful employment in distressed economic areas. Data on various aspects of retraining programs in a wide variety of environmental circumstances have been assembled, and workers being retrained are compared with such control groups as rejected applicants, workers who did not report after acceptance, trainees who dropped out before completing their courses, and unemployed workers who did not apply for retraining. Through cost-benefit analyses and other evaluations of specific programs in different states, where such factors as the personal characteristics of trainees, labor market situations, institutional placement, and procedural arrangements varied widely, the authors have drawn significant conclusions about the value of retraining programs in general.

2. Glen Cain and Gerald Somers, "Retraining the Disadvantaged Worker," Research in Vocational and Technical Education, Proceedings of a Conference, June, 1966, Madison, Wisconsin. The Center for Studies in Vocational and Technical Education, 1967.

3. Gerald Somers and Graeme McKechnie, "Vocational Retraining Programs for the Unemployed," The Winter 1967 Proceedings of the Industrial Relations Research Association.

4. Gerald Somers, Murray Tucker, and Graeme McKechnie. Retraining and Migration as Factors in Regional Economic Development: A Review of the Literature. September 15, 1966, 96 pp., paperbound.

This report, prepared for the Office of Regional Economic Development,

U. S. Department of Commerce, provides a review of research on retraining and migration as independent and interacting factors in regional economic development, an extensive bibliography, and abstracts of relevant publications. The research findings have been related to current legislative policies in these fields both in the U. S. and in Western Europe in order to draw lessons for the improvement and coordination of policies and research designed to further regional economic growth.

5. Gerald Somers, The Training and Placement of Older Workers: An Evaluation of Four Community Projects, September 1967, 210 pp., paperback.

This report, prepared for the National Council on the Aging and the Manpower Administration, U. S. Department of Labor, evaluates four community programs (Baltimore, Boston, Milwaukee, and Buncombe County, North Carolina) designed to obtain employment for hard-core unemployed workers over 50 years of age. The community projects differed in approach and techniques, and frequently the approach and techniques actually adopted differed from those initially planned. However, the projects taken as a whole provide a basis for an evaluation of testing, counselling, training, and placement services for older workers, along the lines espoused by the President and in the M.D.T.A. amendments of 1966.

6. Gerald Somers, Evaluation of Work Experience and Training of Older Workers (Madison: Industrial Relations Research Institute, 1967)

In the broad spectrum of completed and possible studies of the Work Experience and Training Program, this report, prepared for the National Council on the Aging and the Welfare Administration, U. S. Department of Health, Education, and Welfare, has a limited scope. It focuses on older workers, with primary emphasis on retraining. It seeks not to carry out a full-scale cost-benefit evaluation of the training programs for this specific age group, but only to provide the

methodological underpinnings of a model which could be utilized to carry out such a full-scale evaluation. The available data on costs and benefits of the work experience program for older workers are not utilized to derive concrete estimates in this report, but these data are appraised in order to reach some conclusions with regard to their adequacy in the application of cost-benefit analysis.

7. Graeme H. McKechnie, "Retraining and Geographic Mobility: An Evaluation," Doctoral Dissertation, The University of Wisconsin, 1966.

8. Gerald G. Somers, "Our Experience with Retraining and Relocation," reprinted from Toward a Manpower Policy, Robert Aaron Gordon (ed.), (New York: John Wiley & Sons, Inc., 1967)

9. Gerald Somers, Murray Tucker, and Graeme McKechnie, Employment Effects of Plant Expansion and Training in Development Areas. Report. \$2.00

This project, financed by the Economic Development Administration of the U. S. Department of Commerce, compares the characteristics and employment and earnings experiences of three groups of workers in the somewhat depressed counties of Northern Michigan, Northern Wisconsin, and Northern Minnesota. The three groups are: (1) workers who have been employed in industrial plants which were given assistance by the Department of Commerce, (2) workers who were employed in public works financed by the Department of Commerce, and (3) a group of workers selected from the Employment Service files in the same areas. Since a number of the workers in each of these groups had received government subsidized retraining, the study evaluated the relationship of retraining to other forms of government assistance in economically depressed areas.

10. Gerald Somers, Graeme McKechnie, Susan Fernbach, Relocation and Retraining: An Evaluation of Pilot Mobility Projects in Michigan & Wisconsin,

This study follows up the employment and earnings experience of workers relocated under the pilot assistance projects of the U. S.

Department of Labor in Michigan and Wisconsin and compares the experience of the relocatees with that of a control group of nonmovers. Since a large percentage of relocatees (including those who returned to their home area) and the nonmovers took M.D.T.A. retraining prior to the mobility data, the study also provides an evaluation of the relationship between vocational training and geographic labor mobility. This research was financed by the Special Projects Division, Manpower Administration, U. S. Department of Labor.

11. Kirk Petschek, Professor of Urban Affairs, UW-Milwaukee, Negroes and the White-Collar Labor Market: Training, Employment and Attitudes.

Data on training, schools, employment, job-search, and personal experiences were collected from 250 respondents, primarily Negro, in white-collar occupations, randomly selected from (1) the active files of the Employment Service and Youth Opportunity Center of registered workers in the clerical and sales fields; (2) on-the-job trainees selected by the Urban League; (3) M.D.T.A. graduates; (4) direct applicants to selected Milwaukee Voluntary Equal Employment Opportunity Council programs; and (5) January 1966 graduates of selected high schools. The various phases of employment preparation were expected to show some impact on the labor market; a series of relationships should have identified employment barriers and suggested remedies.

The most important conclusion was that no statistically significant correlation was found between any of the activities generally assumed to lead to success in the labor market. Although isolated relationships appeared to exist, the over-all findings were negative.

Secondly, expected differences between white and Negro workers often did not exist or were much smaller than anticipated. Discrimination (or belief that it would constitute a problem) lowered Negro expectations,

but the realism and openness of white workers about their own qualifications often led to similar behavior when confronted with an actual job.

12. Myron Roomkin, "High School Dropouts and Vocational Education in Wisconsin," Master's Thesis, The University of Wisconsin, 1969

The objectives of this study were to determine: (1) the characteristics of high school dropouts who are presently enrolled in vocational education institutions; (2) what type of dropout attends what type of vocational institution and for what reasons; and (3) the extent to which these differences in attendance do exist. An effort has been made to categorize the various types of vocational institutions in Wisconsin that offer instruction to high school dropouts. From these categories, a sample of schools was chosen, within which a sample of high school dropouts of mixed racial identities was selected. Questionnaires were administered to these dropouts with the cooperation of the various vocational schools to insure a high response rate. It is hoped that this study will serve as a pilot study in this area and will present analyses of the data which the participating institutions and other interested parties can use in the decision- and policy-making functions.

III. EVALUATION OF THE EFFECTIVENESS OF VOCATIONAL AND TECHNICAL EDUCATION

A number of evaluative studies are being conducted under the auspices of the Center.

Publications:

1. Charles Perrow and Karl Magnusen, The Vocational School and the Firm: Producers and Consumers in a Disorganized Market. 1969.

This report is based upon data from two vocational schools and 22 industrial firms in the Milwaukee area. It focuses upon the relationship between vocational schools as "producers" of trained manpower, and the firms as "consumers" of that manpower. The study revealed few

significant relationships between the consumers and the suppliers. The firms had little concern with expanding the output of the schools, and the schools had little need to adapt to industrial needs. The consumer and the producer appeared to happily go their somewhat separate ways. This impression raises some questions about the feasibility of "rationalizing" the labor market through such devices as vocational schools, though the schools are valuable on other grounds.

2. Richard W. Whinfield, Doctoral Dissertation, University of Wisconsin, 1969, "A Comparative Study of Selected Characteristics of Post-High School Students in Terminal Programs and Students in Transfer Programs Who Did Not Complete a Bachelor's Degree."

A random sample of students from two technical institutes in Wisconsin, both graduates and drop-outs, were compared to students who had been enrolled in University of Wisconsin two-year branch campuses who failed to complete a bachelor's degree. Comparisons were made of the characteristics of these groups at the time they entered post-high school, their evaluation of their experiences in post-high school, and their employment experiences after leaving school. A sample of 232 students was drawn from the universe of 889. Useable information, including a follow-up questionnaire was obtained from 220 of the 232 students, a 90.04% response.

The students who successfully completed technical programs had more favorable employment experiences on the basis of the variables used in this study. Even though they had achieved less well in high school and scored lower on mental maturity tests than the center completers, this was true.

There are at least four possible reasons for the technical students having had more favorable employment experiences. 1) The education program which they had completed was more relevant to employment needs than was the educational experience of the students having non-technical training;

2) technical completers were more highly motivated, had made clear occupational decisions and their concentration on achieving their occupation was greater; 3) employers were more apt to employ persons who had demonstrated successful completion of a program with a certificate or diploma than persons who did not have such credentials; 4) the placement services of the technical school provided a more effective means of locating jobs for graduates than was true in the centers. The center students were essentially unassisted by their school in obtaining employment.

The students were also asked to evaluate their program. The students in vocational-technical programs rated their post-high school experience much more favorably than did the center students. 72.09% of the males, and 71.43% of the female students who completed technical programs rated their experiences as extremely valuable, while 22.22% of the males and 50% of the female students who had completed center programs gave the same rating. These factors are significant and speak favorably for the post-high school, vocational-technical program, at least in the two communities studied.

Research in Progress:

1. AN EVALUATION OF THE EFFECTIVENESS OF VOCATIONAL AND TECHNICAL EDUCATION IN THE UNITED STATES

Investigators: Gerald Somers and J. Kenneth Little with the assistance of Susan Fernbach and Richard Whinfield

Under a grant from the United States Office of Education and in collaboration with the Bureau of Social Science Research, Washington, D. C., the Center is conducting a study to evaluate the employment experience of graduates and dropouts of high school vocational and technical programs, post-secondary programs (noncollege), and two-year college programs in 1966.

Approximately 350 randomly selected high schools, 100 post-secondary institutions, and 100 two-year colleges were invited to participate in the

study. The samples were stratified to provide representation from major geographical regions of the United States. About 5000 graduates of high school programs and 2500 graduates each of post-secondary programs and of two-year college programs are being asked to provide information about their job placement and job history since the completion of their course in 1966. The study will also seek similar information from students who left school before completing their programs, or transferred from a vocational course to a different program. The number of such students in this part of the study will be about 2500.

This study covers graduates of agricultural, business, distributive education, health, trade, and technical programs. It will provide extensive analysis of the relationship of training to subsequent job placement, earnings, and advancement; the influence of military service (if any) and other job related experience; the extent of job mobility; the attitudes toward and evaluation of the vocational course; and personal and family background factors.

The study should yield useful base-line data on the experience of students in the occupational world two years after leaving their program of preparation for work at several different ages and stages of preparation.

A preliminary report will be available by the end of 1969, and it is anticipated that the study will be completed in 1970.

2. FOLLOW-UP STUDIES OF 1965 GRADUATES OF WISCONSIN SCHOOLS OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION

Investigator: J. Kenneth Little with the assistance of Richard W. Whinfield and Lola Gross

In November of 1967, 1855 graduates of 29 Wisconsin Schools of Vocational, Technical and Adult Education were surveyed by a follow-up questionnaire to determine their experience in the labor market and the relationship of those experiences to their educational programs. Comparison

of the responses was made based on the size of school, the kind of school (schools with vocational-technical programs and schools with only vocational programs) and the geographical location of the school. A response of 81.9% was obtained.

Preliminary data show a high correlation between courses and subsequent jobs, low unemployment, high geographic mobility, a high evaluation of the programs, and an expression of a close relationship between training and the job held. Information was also obtained on sources of placement information, amount of additional education since leaving the school, and other related data. Comparisons between schools show that some differences in work experience and relatedness of work experience to education do exist. Findings are presently being analyzed for a final report.

3. A STUDY OF THE NEEDS OF DISTRICT #18 WISCONSIN SCHOOLS OF VOCATIONAL TECHNICAL AND ADULT EDUCATION

Investigator: Merle E. Strong with the assistance of Richard W. Winfield

The Center for Studies in Vocational-Technical Education is cooperating with the University of Wisconsin Center for Education Research Services in conducting a study of the educational needs in District #18 Wisconsin Schools of Vocational, Technical and Adult Education. One part of this study is of the interests and plans of high school students in vocational and technical education. The Ohio Vocational Interests Survey, as yet an unpublished survey instrument designed to elicit from high school students their occupational plans and vocational program choice, was administered to all high school sophomores and seniors in District #18. While the major purpose in using this instrument was to measure the needs and interests of high school students, the results are to be used in a national test of reliability of the instrument; a re-test of all the sophomores and seniors who had originally taken tests was done for this reliability.

study. The expressed interest of the students is being measured against the availability or the potential location of the vocational school. It was found that 130 females and 200 males had expressed an interest in 23 different kinds of vocational technical programs. These students also indicated the length of time they would be willing to travel to go to a vocational school so that it is possible to estimate the number of persons who said they would attend if the school were located in certain communities. This information, along with labor market information and various other demographic data, will assist in developing a series of recommendations for the development of District #18 Vocational, Technical and Adult School programs.

4. RELATION OF PART-TIME EDUCATION TO OCCUPATIONAL MOBILITY

Investigators: Norman Dufty and Richard W. Whinfield

Part-time students in four Wisconsin Schools of Vocational, Technical and Adult Education were asked to complete questionnaires relating their employment and their job mobility to their part-time educational experiences. The data have been organized and made ready for data processing, but no tentative or final conclusions have as yet been drawn.

5. DATA MARKET INFORMATION AND EMPLOYMENT PLANS OF STUDENTS IN POST-HIGH SCHOOL VOCATIONAL PROGRAMS

Investigators: Norman Dufty and Richard W. Whinfield

Students from four Wisconsin Schools of Vocational, Technical and Adult Education and one technical high school were surveyed to determine what relationship exists between labor market information and the employment plans of the students from these schools. The information has been prepared for data processing and some preliminary results can be reported.

The preliminary results are a comparison of responses from students of different schools. One of the Vocational, Technical and Adult Education

Schools showed a consistent difference from all other schools. This school is in a large community surrounded by a rural area in central Wisconsin.

The students in this school differed from the students in the other schools in that they:

1. Had parents who had had systematically less education.
2. Reported that the job for which they were being trained was more similar to what a relative or friend was doing.
3. Admitted to being influenced to a greater extent by others in enrolling in the program they were taking.
4. Were more confident about the ease about getting a job after their training program, despite coming from a rural area where job opportunities are not as great as they are in a metropolitan area.
5. Reported that the school was the main aid in placement after training with no use of newspaper want ads which are indicated as significant by students in other schools.
6. Had a greater willingness to relocate.
7. Were more decisive about the period in which they continued to search for a job in their school area.
8. Were more severe in this criterion of the vocational information regarding the nature of work.
9. Almost unanimously stated that information on rates of pay was very good.
10. Used the reason of "no college available" in answering the question, "Why did you enter this type of program rather than a regular four-year program?" despite the fact that colleges are seemingly available in this area.

Data will continue to be processed and will include such information as demographic data, programs in which enrolled, the relationship of the student's employment to his parents' employment.

6. THE FLOW OF HIGH SCHOOL GRADUATES TO VOCATIONAL, TECHNICAL SCHOOLS IN WISCONSIN

Investigators: Norman Dufty and Richard W. Whinfield

Data were collected by Dr. Robert Fenske for the study supported by the Center for Studies in Vocational, Technical Education in 1964, in which the graduates of ten selected high schools were asked their plans for the future. The same students were asked, through a follow-up questionnaire, what they were actually doing three years after graduation. The information for this study has been accumulated and is being processed. The response rate was 46.07%, and generally shows that the students who were more successful in high school were apt to respond with a higher percentage of responses than students in the lower percentile. Preliminary data indicate that the percentage of students who attend college is directly proportional to rank in high school graduating class. The attendance in vocational school is almost inversely proportional to the decile rank in high school graduating class.

7. DETERMINANTS OF POST-HIGH SCHOOL EDUCATION

Investigator: Burton A. Weisbrod

This study attempted to develop an empirical model for forecasting the probability that a high school graduate would go on to college or to some other form of post-high school education. In particular, the influence of family income was being investigated, utilizing data from Wisconsin state income-tax returns.

The research was initiated in connection with the dissertation work of John Walder. Subsequent to his death Professor Weisbrod has continued the work, and expects to complete a paper by June 1970.

8. VOCATIONAL CHOICES OF EMPLOYEES TERMINATED IN A PLANT CLOSURE

Investigator: James L. Stern with the assistance of James Marketti

The object of this study is to ascertain the relative earnings advantage gained by workers of a multi-plant corporation terminated in a plant closing who choose one vocational option over another. The three options considered are transfer, retraining, and immediate job search. Transfer consists of geographic relocation to another plant of the same corporation. Retraining is defined to include completion of an M.D.T.A. retraining course. Immediate job search includes all terminated employees who sought employment in the labor market in which the closed plant was located and who did not enter training or take a transfer.

Upon completion, the study will show the ratio of post- to pre-shutdown earnings of various groups of employees exercising each of these options. Counsellors in future plant closings should find the results of this study useful in advising employees about the advantages and disadvantages of these three options. It is anticipated that the advantage of the internal labor market (nationwide movement within the firm) over retraining and immediate job search will be greater for workers disadvantaged by age, race, sex, and lack of education and skill than for young skilled white males. To the degree that workers with similar characteristics (that is workers whose age, sex, skill, and education are the same) fare better in the internal than the external labor market, public policy questions about the efficiency of retraining and job development programs are raised. Most studies of retraining tend to compare people with and without training and conclude that one group (usually the trainees) has done better than the other. If one regards the internal labor market transfer as a somewhat imperfect proxy for no loss of job, the degree to which the ratio of post- to pre-shutdown earnings of the trainee falls short of the ratio achieved by the transferee, is a measure

by which to judge the efficiency of training. If the ratio of post- to pre-shutdown earnings of the trainee exceeds that of the transferee we have the interesting situation in which the plant closing has forced a worker into a situation in which his earnings have improved over what they might have been if the plant did not close and there had been no loss of job.

The study is based on company and social security records of the production workers affected by the closing of the Armour & Company Kansas City meat packing plant. In the year before last, data were collected from the Company and pre-shutdown earnings for individuals were obtained, grouped, coded, and tabulated. Meetings were held with the Social Security Administration (SSA) officials and informal agreement about the form in which data will be submitted and returned was reached.

1963 and 1967 raw earnings data were furnished by the SSA in the summer of 1969. They have been regrouped and recoded to facilitate computer analysis. The first results were obtained in August 1969. It appears that the earnings loss associated with the plant closing is quite high both for workers who retrain and for those who sought employment without further training. For example, although only preliminary analysis has been made of the data, unskilled male Negroes and whites earned almost \$3,000 a year less than workers with similar demographic characteristics who transferred and thereby insulated themselves from the operation of the external labor market.

Preliminary results are being checked, further analysis is being made and the final draft of the report will be undertaken within the next few months. Hopefully, the research project will be completed shortly thereafter.

9. A COST-EFFECTIVENESS STUDY OF IN-SCHOOL AND SUMMER PROGRAMS OF THE
NEIGHBORHOOD YOUTH CORPS

Investigators: Gerald Somers and Ernst Stromsdorfer with the assistance
of Janie Haugh

The objective of this study is to measure the effectiveness of the Neighborhood Youth Corps (NYC) in relation to its costs. Earnings, wage rates, and employment rates will constitute economic indexes of program performance, school attendance, scholarship, deportment, and attitudinal measures will constitute noneconomic indexes. Economic measures of marginal and average costs of the program to federal and local governments, to society, and to individuals will be computed. Noneconomic costs will be treated in a taxonomic fashion but will not enter directly into the cost-effectiveness analysis. From the data, and subsequent conclusions drawn, recommendations will be made concerning the efficient allocation of NYC funds. Data are being obtained by personally interviewing 600 each of the control and experimental groups chosen on a nationwide basis. The major emphasis of this study will be on a comparison of the graduates of the NYC programs as against non-NYC graduates. A second major emphasis will be to compare NYC graduates against high school dropouts. The study is being financed by the Cost-Benefit Analysis Division, Manpower Administration, U. S. Department of Labor.

A preliminary report has been submitted to the Manpower Administration and the final report is to be concluded in 1970.

IV. COMPARATIVE STUDIES OF VOCATIONAL TRAINING AND LABOR MARKET BEHAVIOR

Under partial support of the International Studies Program of the University of Wisconsin, and with aid from the Indonesian Consortium, research has been conducted on education, including vocational education and training, as it relates to labor market behavior of industrial workers in India, Japan, Singapore, the Philippines, Thailand, and, in 1969, Australia and Indonesia. Approximately 3,600 workers in major industrial cities of these countries have been interviewed on the basis of a common questionnaire, translated into the relevant national languages and dialects, and administered by indigenous personnel. The following reports have emerged from this comparative survey, and others are pending:

1. Gerald G. Somers and Masumi Tsuda, "Job Vacancies and Structural Change in Japanese Labor Markets," reprinted from The Measurement and Interpretation of Job Vacancies (New York: National Bureau of Economic Research, 1966)--Reprint No. 76 of the Industrial Relations Research Institute Reprint Series.
2. Shunichiro Umetani, "Selected Case Studies of Vocational Training in Japanese Manufacturing Firms," Master's Thesis, University of Wisconsin, 1968.
3. Bhal J. Bhatt, Labor Market Behavior of Factory Workers in Bombay, (Madison: Industrial Relations Research Institute, 1969), \$4.50 cloth-bound, \$3.50 paperbound. From University of Wisconsin Doctoral Dissertation, 1966.
4. S. P. Muthuchidambaram, "Determinants of Income in Madras Labor Market," Doctoral Dissertation, University of Wisconsin, 1968.
5. S. P. Muthuchidambaram, "Factors Determining Earnings of Selected Blue-Collar Workers in India and Japan," Proceedings of the Twenty-first Annual Winter Meeting, Industrial Relations Research Association, 1968.

6. Bhal J. Bhatt, "Changing Characteristics of the Industrial Labor Force in Developing Countries" and

7. Gerald G. Somers, "Education and Training of Industrial Workers in Developing Countries," both published in Proceedings of Symposium on Manpower Problems in Emerging Nations, held at State University of New York, Buffalo, May 15-16, 1969.

8. Solomon Levine and Gerald Somers, "Wage Differentials and Youth Employment in Japan," prepared for U. S. Department of Labor, Bureau of Labor Statistics, Summer 1969.

9. Ari Uchida, "Wage Differentials in Japanese Industry," Master's Thesis, University of Wisconsin, 1969.

V. COMMUNITY AND POLITICAL FACTORS AFFECTING VOCATIONAL EDUCATION

The following research is being conducted by faculty members and graduate students in an effort to determine the community and political factors which influence the formation of policy in vocational education.

Research in progress:

1. CORRELATES OF STATE VARIATIONS IN VOCATIONAL EDUCATION PROGRAMS

Investigators: Michael Aiken and Robert R. Alford

As stated in last year's report, the statistics on enrollments and expenditures in American cities proved to be difficult to obtain, as well as of questionable validity, and resulted in the decision to alter the unit of analysis from cities to states. The local districts having the competence and authority to carry out vocational education programs were often the local school district. In some states the school district was coterminous with the boundaries of the urban place as defined by the U.S. Bureau of the Census, but more often it was either a smaller unit, one with overlapping boundaries, or else a county unit. Enrollment and expenditure statistics were available for urban places in some states and were obtained, coded, and transformed into a machine-readable format. These data are currently housed in the Social Science Data and Program Library Service of the University of Wisconsin. The representativeness of these cities among the 1,654 incorporated urban places in the United States of size 10,000 or more in 1960, or even of the more restricted 676 incorporated urban places of size 25,000 or more in 1960, was sufficiently in question not to warrant pursuing this line of inquiry.

States proved to be more appropriate units of analysis because state boards of vocational education are the primary nonfederal decision-making units for vocational education programs. In addition, information about enrollment and expenditures for vocational education programs as well as social, political, economic, and welfare characteristics were more accessible for state units. After a review of the history of

vocational education programs, it was decided to examine correlates of states having high expenditures (from federal, state, and local sources) as well as high enrollments by type of program for fiscal years 1961 and 1965. The year 1961 was chosen since it was close to 1960, the most recent year for which ample characteristics of states based on census data are available. The year 1965 was selected because it was the first full year for which the Vocational Education Act of 1963 had full effect. Another reason for the choice of 1965 was that it was, at that time, the most recent year for which statistics on state vocational and educational expenditures and enrollments were available. Information about federal, state, and local expenditures as well as enrollments in the different types of programs--agriculture, distributive education, home economics, trades and industry, and other areas--was abstracted from the Annual Report: Vocational and Technical Education, Fiscal Year 1961 and transformed into a machine-readable format. Comparable information was taken from a report in the same series for fiscal year 1965; three additional categories of programs--health, office, and technical--were included in this latter report. Approximately 100 social, economic, and welfare characteristics of states were taken from the 1960 Census of Population and other sources published by the U. S. Bureau of the Census. To this was added about 40 political characteristics of states taken from various studies of states conducted by political scientists.

A preliminary report based on these data entitled "Correlates of State Enrollment and Expenditures on Vocational Education" has been written by Michael Aiken and Robert R. Alford. The aim of this report

is to ascertain the degree to which state vocational and technical education programs are responsive to the needs of poorly educated and financially indigent citizens. This was done by examining correlation coefficients between socioeconomic characteristics of states and these state expenditure and enrollment statistics (after standardizing for population size). In 1961, the strongest relationships between such measures of need were with enrollments in agriculture per 100,000 population; the higher the proportion of poverty-stricken families and poorly educated citizens, the higher the level of enrollment in this program. Relationships between such measures of need and enrollments in other programs proved to be less consistent. The more poor families, the lower the enrollments in trades and industry, but the relationship with proportion of poorly educated citizens was almost zero.

These need measures were also related to the per capita levels of federal, state, and local expenditures. Federal expenditures were consistently associated with both measures of need in 1961, while per capita state and local expenditures for vocational and technical education were very weakly, although positively, related to these need measures. When similar relationships were computed with the 1965 data, it was found that almost all the relationships between these measures of need and total enrollments in the various programs (standardized for population size of the state) were negative, meaning that in the first full year that the Vocational Education Act of 1963 could have had an effect, that (standardized) enrollments were inversely related to need in most categories of vocational education. Examining

the per capita expenditures by source, we find that the relationships between these two need measures and federal per capita expenditures were still positive, but that there was almost no relationship between local per capita expenditures and the need measures while the relationship between state per capita expenditures and the poverty measure was actually negative, although the relationship between state per capita expenditures and the education measure was positive.

Such results from correlational analyses suggest the interpretation that there were some dramatic shifts in the level of state funding in some of the more affluent, industrialized, probably Northern states. An understanding of such changes in the level of funding requires additional and more sophisticated analysis than that contained in this preliminary report, an analysis that takes regional differences into account, especially between the North and the South.

A preliminary attempt to understand such changes was made by examining the per capita expenditures from different sources--federal, state, and local--in 1961 and 1965 by type of program. In 1961, it was found that the average per capita expenditure for vocational education programs from all sources was higher in the South than in the North, but most of this was attributable to the higher levels of support for agricultural and home economics programs in the South than in the North (\$.68 versus \$.36 per capita for agriculture and \$.64 versus \$.41 per capita for home economics) as opposed to average per capita expenditures for trades and industry which was slightly lower among Southern states than among Northern states (\$.42 versus \$.35).

An examination of source of funding for these programs in 1961 found that it was the state and local components that primarily accounted for these differences, although federal support also slightly favored trades and industry in Northern states and agriculture and home economics in Southern states. By 1965 this had changed dramatically. There was little difference in federal support for these three categories of programs (the average per capita expenditures for Southern states was now actually slightly higher in trades and industries in Southern states, agriculture remained stronger in the South, and there was little difference in home economics). However, the average per capita state and local expenditures (combined) were actually higher in Southern states for all three categories. Thus, the South had now outstripped the Northern states in expenditures even for trades and industry.

Such a finding may mean that the expansion of vocational education expenditures between 1961 and 1965 has occurred in the type of vocational education that is presumably most appropriate for a changing industrial economy, both in Northern and Southern states, but most sharply in Southern states. An analysis of enrollment statistics (standardized by population size), while lending some support to this conclusion, also suggested that on the average the trades and industrial component of total enrollment is still far smaller than that of agriculture and home economics among Southern states as compared to Northern states, and that on the average the absolute increases in enrollment among Southern states was greater in agriculture and home economics than in trades and industry. This suggests that while Southern states may be allocating increased funds to training that is more suited to an industrial economy, at the same time enrollments in agriculture and home economics

far outstrip enrollments in trades and industrial programs (even if the new category of technical were added to this average).

This interpretation provides a less favorable prognosis for Southern states, at least in comparison with the more developed and more industrialized non-Southern states in terms of vocational education helping to prepare the future labor force of that region.

In conclusion, our attention here on the relative emphasis given to various types of vocational education within regions should not obscure the fact that our data suggest that relatively few persons were enrolled in vocational education programs in 1965--an average in the 50 states of 4 in 1,000. Even if these statistics were calculated in terms of the population most eligible to receive vocational education, enrollments would still be in stark contrast to supposed need. And the fact that the average state expenditures for vocational education from all sources--federal, state, and local--was less than \$2.00 per citizen in 1965 is additional support for our pessimistic conclusion.

Future analysis of these data will attempt to delve more deeply into these exceedingly complex, and deceptive, data in trying to account for some of the changes that we have noted here.

2. POLITICS AND POLICY FORMULATION IN VOCATIONAL EDUCATION IN WISCONSIN, 1900 - 1968

Investigators: B. Dean Bowles, Assistant Professor of Educational Administration

Donald M. McIsaac, Associate Professor of Educational Administration

Research Assistants: Joseph H. McGivney (currently Assistant Professor of Educational Administration, Syracuse University); Eugene C. Craven (currently Assistant to the Vice-President for Academic Affairs, University of Wisconsin); and Jacob O. Stampen (currently Assistant to the Vice-President for Academic Affairs, University of Wisconsin)

This research into the politics and policy formulation processes of vocational and technical education in Wisconsin from 1900-1968 aims to (1) identify the political influences which are involved in the policy processes especially (2) the role of the Legislature, Governor's Office, Coordinating Council for Higher Education, State Board of Vocational, Technical, and Adult Education, Vocational Directors Association, and other educational and non-educational interest groups; (3) study decisionmaking on the State Board of Vocational, Technical, and Adult Education before and after the impact of the Vocational Education Act of 1963; (4) demonstrate State Assembly and Senate voting patterns on all issues, appropriations-tax issues, education issues, and vocational-technical-adult education issues from 1900-1968; (5) identify social, economic, and political factors which precede, correlate, and predict legislative voting behavior, particularly voting behavior relevant to major changes in public policy in education; and, finally, (6) develop research methods which can readily identify and demonstrate the utility of the findings of (4) and (5) as theoretical constructs for other, comparative studies in the politics of education.

To date the research has completed objectives number one (1), two (2), and three (3). The substance of these findings have been filed with the Center in the form of a Ph.D. dissertation by Joseph H. McGivney entitled "The Politics of Vocational Education in Wisconsin, 1900-1967" and a Masters thesis by Eugene C. Craven on "The Directors Association and the Politics of Vocational Education in Wisconsin, 1900-1968." These studies employed standard anthropological participant-observer field techniques and sociological open-ended and focused interviews as the principal methodologies.

Objectives number four (4) and five (5) have been completed in part. All of the legislative voting data from 1895-1967 (ten-year intervals) on all contested issues as well as over twenty-five legislator personal, constituency, social, economic and political (including incumbent defeat and turnover patterns) variables have been key-punched, corrected and stored on tape. Legislative voting behavior factor analyzed and correlated with the twenty-five variables for the years 1945-1967 can be found in Eugene C. Craven's Ph.D. dissertation, "Discriminating Factors Among Legislator Voting Groups within the Wisconsin State Legislature, 1945-1967," and an analysis of issue treatment by the same Legislatures is the subject of "Voting Behavior in the Wisconsin State Legislature: 1945-1967," a Ph.D. dissertation by Jacob O. Stampen. A lack of computer funds prevented an analysis of the available data prior to 1945. Manipulation of the data for 1895 through 1935 would certainly further refine the theoretical construct and give an added time perspective. However, it is the considered judgment of the director of the project that through an examination of the findings the major conceptual-theoretical objectives of the research have been achieved.

(1) Statements of the achievement of objective number six (6) can be found in the Craven and Stampen volumes. More specifically, a reordered oblique factor analysis technique (r-mode) was refined cooperatively with Professor McIsaac for analysis of the legislator voting behavior data and the same program was modified for a q-mode analysis of issue treatment. A trend surface analysis computer program was developed for the analysis and display of the personal, constituency, social, economic, and political variables which were geographically displaced. Again, lack of computer funds prevented the application of this program to the data in a systematic fashion.

In summary, the major objectives of the study have been achieved. However, the director will request additional computer funds from the Center in order to complete the trend surface analysis of the geographically displaced data and to complete the factor analysis of the voting data from 1895 to 1935. Anticipating this prospect, it is expected that the above findings can be integrated into a single monograph entitled, "The State Politics of Vocational Education: The Case of Wisconsin, 1900-1968" sometime in 1970. Moreover, a half-dozen articles are being prepared by the various researchers who have been involved in this study; these range from subjects of research methodology through policy formulation and the politics and government of vocational education. Meanwhile, the project has produced three Ph.D. dissertations and one Masters thesis which contain the bulk of the findings. These have been filed with the Center for general circulation and use.

VI. THE STAFFING OF VOCATIONAL EDUCATION

As a final area of research interest in the vocational education field, the Center is engaged in a study of the source and supply of teachers for vocational and technical education. The following study is pilot research in Wisconsin which may be extended to other sections of the country.

Investigator: Jeffrey Gibbs

Publication: The Education, Sources and Recruitment of Wisconsin Vocational and Technical Teachers, Report, 1969, \$1.50.

Enrollment in the Wisconsin vocational system has tripled--to approximately 200,000 full-time enrollees--since the passage of the Vocational Education Act of 1963. The result has been a tremendous increase in demand for vocational teachers in the state.

The main goal of this study is to examine how teacher sources, recruitment, education level, and mobility have changed in recent years. In particular, an attempt is being made to discover significant differences in these variables before and after 1963.

The major hypothesis is that passage of the Vocational Education Act has necessitated the use of different sources and different recruitment techniques for vocational teachers. Characteristics of vocational teachers and teacher utilization will be examined also. In addition, a comparison of the characteristics of different types of vocational teachers will be made. It is hoped that the findings can be used to facilitate the recruitment of new teachers.

The study, conducted in cooperation with the Wisconsin State Board of Vocational, Technical, and Adult Education, was started in March 1968. A survey questionnaire was distributed to all full-time vocational teachers, supervisors, and directors in Wisconsin. The final count shows a return

of 1,079 (70 percent) teacher-supervisor questionnaires and 24 (83 percent) full-time director questionnaires.

All data has been transferred to computer cards; a set of these cards will be given to the State Board of Vocational Education so that they can discover the prevalent characteristics of any type of vocational teacher they are trying to recruit. The relevant recruitment characteristics included in this survey are: 1) subject or curriculum area taught; 2) average age at recruitment; 3) sex; 4) educational level; 5) state post-high school education was received in; 6) position before joining vocational system; 7) state residence before joining system; and 8) methods used by teachers to find job.

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The major hypothesis is that passage of the Vocational Education Act has necessitated the use of different sources and different recruitment techniques for vocational teachers. Characteristics of vocational teachers and teacher utilization will be examined also. In addition, a comparison of the characteristics of different types of vocational teachers will be made. It is hoped that the findings can be used to facilitate the recruitment of new teachers.

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GRADUATE STUDY

Graduate Study in Vocational and Technical Education

The encouragement and promotion of graduate study in the field of vocational and technical education is one of the major objectives of the Center. Research assistantships have been available for activities in connection with the University-wide program of research on problems in this area, including studies of: the job market and occupational trends; job requirements and skills; worker mobility; human aptitudes, skills, and knowledge required by occupational groups; developments in instructional materials; curriculum plans; teaching practices; instructor qualifications; and other subjects related to the general goals of strengthening programs of education, training, or counseling for youth and adults for employment or re-employment.

Research assistants work toward graduate degrees in agriculture, economics, education, engineering, commerce, industrial relations, political science, psychology, sociology, or other fields which have a pertinent relationship to important aspects of vocational and technical education. It is anticipated that their work on vocational education as graduate students will encourage them to continue their interest in this field during their post-graduate careers.

A list of the graduate students who have received financial aid from the Center prior to 1969 can be found in the 1968 Annual Report. Each student assisted the research being carried on by a faculty member associated with the Center. More current research assistants are listed under "Staff" above.

GRADUATE DEGREES

Since the establishment of the Center, a number of Master's theses and Ph. D. dissertations have come out of research sponsored by the Center. Abstracts of these theses and dissertations prior to 1969 were included in the 1968 Annual Report. Descriptions of the following Master's theses completed by Thomas Barocci, Jeffrey Gibbs, and Myron Roomkin are included in the "Research and Publications" section above.

Thomas Barocci, "Curriculum Initiation in Wisconsin Vocational and Technical Schools" 1969.

Myron Roomkin, "High School Dropouts and Vocational Education in Wisconsin," 1969.

Jeffrey Gibbs, "The Education, Sources and Recruitment of Wisconsin Vocational and Technical Teachers," 1969

The following doctoral dissertation, financially supported by the Center, stemmed from the research described in the "Research and Publications" section above (III, 1.).

Karl O. Magnusen, "Technology and Occupational Differentiation: A Field Study of Manufacturing Corporations," 1969.

PUBLICATIONS

Publications and pending publications stemming from the Center's research activities are indicated above in those sections describing the research. Many of these publications are also listed below. If no price is listed, a single copy of the publication will be sent free of charge. The asterisk (*) indicates that the publication is out of print.

RESEARCH REPORTS

- Duane Kasten. A Pilot Study of Curriculum Needs in Welding Technology. (Summary of a Report). No date, 13 pp., mimeo.
- *John Helling and J. Kenneth Little. Study of South Milwaukee County Educational Needs. 1967, 91 pp., mimeo.
- G. Soundar Rajan. A Study of the Registered Apprenticeship Program in Wisconsin. 1966, 288 pp., paperbound \$2.00 + 12 cents postage.
- *Gerald Somers, Murray Tucker, and Graeme McKechnie. Retraining and Migration as Factors in Regional Economic Development: A Review of the Literature. September 15, 1966, 96 pp., paperbound.
- Norman Dufty, ed., Essays on Apprenticeship. 1967, 168 pp., paperbound, \$3.00 + 12 cents postage.
- Gerald G. Somers. Evaluation of Work Experience and Training of Older Workers. 1967, 79 pp., paperbound.
- Gerald G. Somers and others. The Training and Placement of Older Workers: An Evaluation of Four Community Projects. September 1967, 210 pp., paperbound.
- Gerald G. Somers, ed. Retraining the Unemployed. Madison: University of Wisconsin Press, 1968, 351 pp., hardbound, \$10.00. (Available from the University of Wisconsin Press, P. O. Box 1379, Madison, Wisconsin 53706)
- Philip A. Perrone, with the assistance of Mrs. Lola Gross. A National School Counselor Evaluation of Occupational Information. April 1968 31 pp., mimeo.
- Richard Perlman. Assessing the Extent of Manpower Forecasting Among Milwaukee Firms. June 1969, 58 pp., mimeo.
- Richard Perlman. On-The-Job Training in Milwaukee--Nature, Extent, and Relationship to Vocational Education. June 1969, 37 pp., mimeo.

CONFERENCE PROCEEDINGS

*Occupational Data Requirements for Education Planning, June 15-16, 1965.
165 pp., paperbound, \$3.00.

Follow-Up Studies in Educational Research, November 18-19, 1965. 37 pp.,
mimeo.

Research in Vocational and Technical Education, June 10-11, 1966. 285 pp.,
paperbound, \$3.00 + 18 cents postage.

Research in Apprenticeship Training, September 8-9, 1966. 192 pp.,
paperbound, \$3.00 + 12 cents postage.

Research Approaches to the Initiation of New Vocational-Technical Programs,
October 3-7, 1966. 31 pp., mimeo.

The Encouragement of Research in Predominantly Negro Universities,
February 23, 1967. 25 pp., mimeo.

Curriculum Programs in Action: Their Administration and Evaluation,
February 15-17, 1967 (with San Francisco State College). 127 pp.,
paperbound, \$2.00. (Available from Communication Service Corporation,
1629 K Street, N. W., Washington, D. C. 20006)

The Education and Training of Racial Minorities, May 11-12, 1967. 209 pp.,
paperbound, \$3.00 + 12 cents postage.

Education and Training in Correctional Institutions, June 5-6, 1968.
117 pp., paperbound, \$3.00 + 12 cents postage.

REPRINTS OF THE CENTER

*W. Lee Hansen, "Human Capital Requirements for Educational Expansion:
Teacher Shortages and Teacher Supply," Education and Economic Development
(1965)

*William J. Swift and Burton A. Weisbrod. "On the Monetary Value of Education's
Intergeneration Effects," The Journal of Political Economy, Vol. LXXIII,
No. 6 (December 1965).

W. Lee Hansen, "Labor Force and Occupational Projections," Proceedings of the
Eighteenth Annual Meeting, Ed. Gerald Somers. Madison: Industrial
Relations Research Association (December 1965)

*Burton A. Weisbrod, "Investing in Human Capital," The Journal of Human
Resources, Vol. I, No. 1 (Summer, 1966)

Gerald G. Somers, "Government-Subsidized On-The-Job Training: Surveys of
Employer's Attitudes," Hearings Before the Subcommittee on Employment
and Manpower, 89th Congress (September 1965; February 1966).

Burton A. Weisbrod, "Conceptual Issues in Evaluating Training Programs,"
Monthly Labor Review (October 1966)

David B. Johnson and James L. Stern, "Why and How Workers Shift from Blue-Collar
to White-Collar Jobs," Monthly Labor Review (October 1969)

*Gerald G. Somers, "Retraining the Unemployed Older Worker," Technology, Manpower and Retirement Policy, Ed. Juanita Kreps. Cleveland: The World Publishing Company, 1966.

*Glen Cain, W. Lee Hansen, and Burton A. Weisbrod, "Occupational Classification: An Economic Approach," Monthly Labor Review (February 1967)

Norman F. Dufty, "Apprenticeship--A Theoretical Model," British Journal of Industrial Relations, Vol. V (March 1967)

*J. K. Little, "The Occupations of Non-College Youth," American Educational Research Journal, Vol. 4, No. 2 (March 1967).

Glen Cain and Gerald Somers, "Retraining the Disadvantaged Worker," Research in Vocational and Technical Education, Proceedings of a Conference, June 10 and 11, 1966, Madison, Wisconsin. Madison: Center for Studies in Vocational and Technical Education, 1967.

Gerald G. Somers, "Our Experience with Retraining and Relocation," Toward a Manpower Policy, Ed. R. A. Gordon. Wiley, 1967.

Jack Barbash, "Union Interests in Apprenticeship and Other Training Forms," The Journal of Human Resources, Vol. III, No. 1 (Winter 1968).

Gerald G. Somers, "The Response of Vocational Education to Labor Market Changes," The Journal of Human Resources, Supplement, 1968.

Walter Fogel, "Labor Market Obstacles to Minority Job Gains," Proceedings of the Industrial Relations Research Association (Winter 1967)

Gerald G. Somers and Graeme H. McKechnie, "Vocational Retraining Programs for the Unemployed," Proceedings of the Industrial Relations Research Association (Winter 1967).

Burton A. Weisbrod and Peter Karpoff, "Monetary Returns to College Education, Student Ability, and College Quality," The Review of Economics and Statistics, Vol. L, No. 4 (November 1968).

REPRINTS OF THE INDUSTRIAL RELATIONS RESEARCH INSTITUTE (of Center research)

#81 James Stern, "Adjustments to Plant Closure," Monthly Labor Review, Vol. 90, No. 1 (January 1967)

*87 W. Lee Hansen, "The Economics of Scientific and Engineering Manpower," The Journal of Human Resources, Vol. II, No. 2 (Spring 1967)

*93 Norman F. Dufty, "Blue Collar Contrast," International Journal of Comparative Sociology, Vol. VIII, No. 2 (September 1967).

*97 Gerald Somers and Burton Weisbrod, "The Development of Human Resources," Federal Programs for the Development of Human Resources, Joint Economic Committee, U. S. Congress, Vol. 1, Washington (1968)

Gerald Somers, "Data Needs for Monitoring and Evaluating Manpower Programs," Proceedings, 21st Annual Winter Meeting of the Industrial Relations Research Association, (May 1969)

Abstracts of the above-listed reprints up to and including 1967 were included in the last annual report. Below are abstracts of reprints appearing in the Center series since that date:

Jack Barbash. "Union Interests in Apprenticeship and Other Training Forms," The Journal of Human Resources, Vol. III (Winter 1968), pp. 63-85, Voc. Ed. Reprint Series.

The focus of this exploratory formulation of union interest in apprenticeship and other forms of training is on three main environments: craft union apprenticeships, the concern of industrial unions with training concurrent with employment, and the labor movement's social policy interests in training. For craft unions, the apprenticeship system is primarily but not exclusively a method of exercising control over wages by regulating the supply of labor for the craft. The industrial union seeks primarily to fix the price of labor and approaches training as a problem affecting that price, not as a mechanism for the control of the labor supply. Problems of structural unemployment, poverty, civil rights, and economic growth, combined with the availability of public funds for training, have contributed to the expansion of union interests in training.

Walter Fogel. "Labor Market Obstacles to Minority Job Gains," The 1967 Winter Proceedings of the Industrial Relations Research Association, Voc. Ed. Reprint Series.

This paper seeks to identify and examine a number of obstacles to the effective utilization of minority group manpower. These obstacles include highly structured labor markets, formal education as a criterion in the employee selection process, and slack labor markets. The author examines the effects of these problems and tries to find solutions for overcoming them.

Gerald G. Somers and Graeme H. McKechnie. "Vocational Retraining Programs for the Unemployed," Twentieth Annual Proceedings of the IRRA, ed. Gerald G. Somers. Madison: Industrial Relations Research Association, December 1967. Voc. Ed. Reprint Series.

Starting from a position near zero at the beginning of this decade, the federal government has now called upon retraining to help solve the problems of depressed areas, unemployment, foreign trade expansion, poverty, and the growing relief rolls. The purpose of this paper is to review the present state of knowledge of the value of vocational training for the unemployed. In their analysis, the authors review many of the recent evaluative studies in this area and present some of the questions which still remain unanswered.

Gerald G. Somers. "The Response of Vocational Education to Labor Market Changes," The Journal of Human Resources, Vol. 3 (Supplement 1968), pp. 32-58. Voc. Ed. Reprint Series.

The traditional vocational education system in the United States has been criticized for its lack of responsiveness to the needs of a changing labor market. The Vocational Education Act of 1963 resulted from these criticisms, but it has not satisfied the critics. This paper evaluates the relationship of vocational education to the labor market from the standpoints of the changing composition of vocational school enrollment,

job placement results, cost-benefit evaluation, and the accommodation of the needs of the disadvantaged. Attention is given to the procedures used in initiating new vocational programs, the adequacy of labor market data available for vocational education planning, and the utilization of these data by vocational educators.

THE JOURNAL OF HUMAN RESOURCES

The Journal of Human Resources, which was initiated by the Center for Studies in Vocational and Technical Education, has just completed its fourth year of publication. Its primary emphasis has continued to be the role of education and training in enhancing of productive skills, employment opportunities and income. In addition to the funds provided for support of the Journal by the Center, it has received substantial financial support from the University of Wisconsin through the Industrial Relations Research Institute and from the Institute for Research on Poverty which was established at the University under a grant from the Office of Economic Opportunity.

Contents of volumes of the Journal up to and including the fall of 1968 (Vol. III, No. 4) have been described in earlier annual reports. The contents of the 1969 issues of the Journal are as follows:

Volume IV, Number 1: "DETERMINANTS OF TEENAGE EMPLOYMENT," Edward Kalachek, Washington University; "THE FLOW OF HIGH SCHOOL STUDENTS TO SCHOOLS, COLLEGES, AND JOBS: A RE-EXAMINATION OF SOME OLD QUESTIONS BY THE USE OF MULTIPLE INDICES OF TALENT," Leonard L. Baird and John L. Holland, American College Testing Program; "EARNINGS, UNEMPLOYMENT, AND THE SUPPLY OF ENLISTED VOLUNTEERS," Stuart H. Altman, Brown University; "SHOULD THE PAYROLL TAX FINANCE HIGHER BENEFITS UNDER OASDI? A REVIEW OF THE ISSUES," Dorothy S. Projector, Social Security Administration; "DIFFERENCES BETWEEN ECONOMICALLY DISADVANTAGED STUDENTS WHO VOLUNTEER AND WHO DO NOT VOLUNTEER FOR ECONOMIC OPPORTUNITY PROGRAMS," Edsel L. Erickson, Western Michigan University; Albert Ritsema, Wisconsin State University, Oshkosh; Wilbur B. Brookover, Michigan State University; Lee M. Joiner, Southern Illinois University; "THE GROWTH OF EDUCATIONAL EMPLOYMENT IN THREE COUNTRIES, 1895-1964," John P. Cullity, Rutgers University; "THE CAUSES OF URBAN POVERTY," Woo Sik Kee, West Virginia University; "TEACHER SALARIES AND THE ECONOMIC BENEFITS OF SEARCH," A. G. Holtmann, Florida State University; "THE EFFECT OF GEOGRAPHIC LABOR MOBILITY ON INCOME: A BRIEF COMMENT," Lowell E. Gallaway, Ohio University.

Volume IV, Number 2: "DETERMINANTS OF SCHOOL ENROLLMENT AND SCHOOL PERFORMANCE," John Conlisk, University of California, San Diego; **"THE EFFECT OF FAMILY INCOME ON CHILDREN'S EDUCATION: SOME FINDINGS ON INEQUALITY OF OPPORTUNITY,"** Stanley H. Masters, Rutgers University; **"THE DISTRIBUTION OF COSTS AND DIRECT BENEFITS OF PUBLIC HIGHER EDUCATION: THE CASE OF CALIFORNIA,"** W. Lee Hansen and Burton A. Weisbrod, University of Wisconsin; **"THE ALLOCATION OF THE COST OF DISPLACED LABOR AND SEVERANCE PAY,"** Vladimir Stoikov, University of Illinois; **"REGIONAL DEVELOPMENT AND THE RURAL POOR,"** Robert H. Stroup, University of Kentucky, and Michael B. Hargrove, University of Maryland; **"A BENEFIT-COST ANALYSIS OF THE VOCATIONAL REHABILITATION PROGRAM,"** Ronald W. Conley, President's Committee on Mental Retardation; **"RESEARCH NOTES ON THE CONVENTIONAL POLITICAL BEHAVIOR OF THE POOR,"** W. Joseph Heffernan, Jr., University of Wisconsin.

Volume IV, Number 3: "LABOR-SUPPLY EFFECTS OF INCOME, INCOME-WORK, AND WAGE SUBSIDIES," Jonathan Kesselman, Massachusetts Institute of Technology; **"A SUPPLY FUNCTION OF FIRST-TERM RE-ENLISTEES TO THE AIR FORCE,"** John McCall, University of California, Irvine, and Neil Wallace, University of Minnesota; **"LINEAR SYNTHESIS OF SKILL DISTRIBUTION,"** Finis Welch, Southern Methodist University; **"A MODEL OF CHOICE IN AN AUSTRALIAN LABOR MARKET,"** Norman F. Dufty, Western Australia Institute of Technology; **"SOCIOECONOMIC STATUS: A RE-EXAMINATION OF ITS DIMENSIONS,"** Jerome B. Gordon, Columbia University; **"ECONOMIC ASPECTS OF PROJECTING REQUIREMENTS FOR HEALTH MANPOWER,"** Herbert E. Klarman, The Johns Hopkins University; **"A WORKING LIBRARY ON RIOTS AND HUNGER,"** Martin Bronfenbrenner, Carnegie-Mellon University.

VOCATIONAL EDUCATION--TODAY AND TOMORROW

The Center has in preparation a definitive volume on the present status and changing character of vocational and technical education in the United States. Outstanding national experts in this field have written chapters on the important problems and issues facing occupational education today. The finished manuscript has been submitted for publication and is expected to be available in 1970. Following is a list of chapter titles and authors:

INTRODUCTION

Gerald G. Somers
University of Wisconsin

CHANGING GOALS

Melvin L. Barlow
University of California
Los Angeles

CURRICULUM RESPONSES TO OCCUPATIONAL TRENDS

Garth Mangum
University of Utah

OCCUPATIONAL FACTS AND THEIR USE: MEDIATION AND THE GENERATION OF OCCUPATIONAL INFORMATION

Robert P. O'Hara and
David Tiedman
Harvard University

CHANGES AND INNOVATIONS IN CURRICULUM
AND INSTRUCTION

William S. Micheels
M. James Bensen
Stout State University

CHANGES IN ADMINISTRATION, ORGANIZATION,
AND PROGRAMS

Chester Swanson
University of California
Berkeley

CHANGING RELATIONSHIPS BETWEEN SCHOOLS
AND INDUSTRY

Samuel M. Burt
W. E. Upjohn Institute
for Employment Research

STAFFING VOCATIONAL-TECHNICAL PROGRAMS

Rupert Evans
University of Illinois

EVALUATING VOCATIONAL AND TECHNICAL
EDUCATION PROGRAMS

Jerome Moss
University of Minnesota
and Ernst Stromsdorfer
Pennsylvania State
University

VOCATIONAL EDUCATION FOR DISADVANTAGED
GROUPS

Laure Sharp
Bureau of Social
Science Research

LESSONS FROM OTHER COUNTRIES

Norman Dufty
Western Australia Insti-
tute of Technology

A LOOK AT THE FUTURE

Marvin J. Feldman
The Ford Foundation

SUMMARY AND CONCLUSIONS

J. Kenneth Little
University of Wisconsin

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